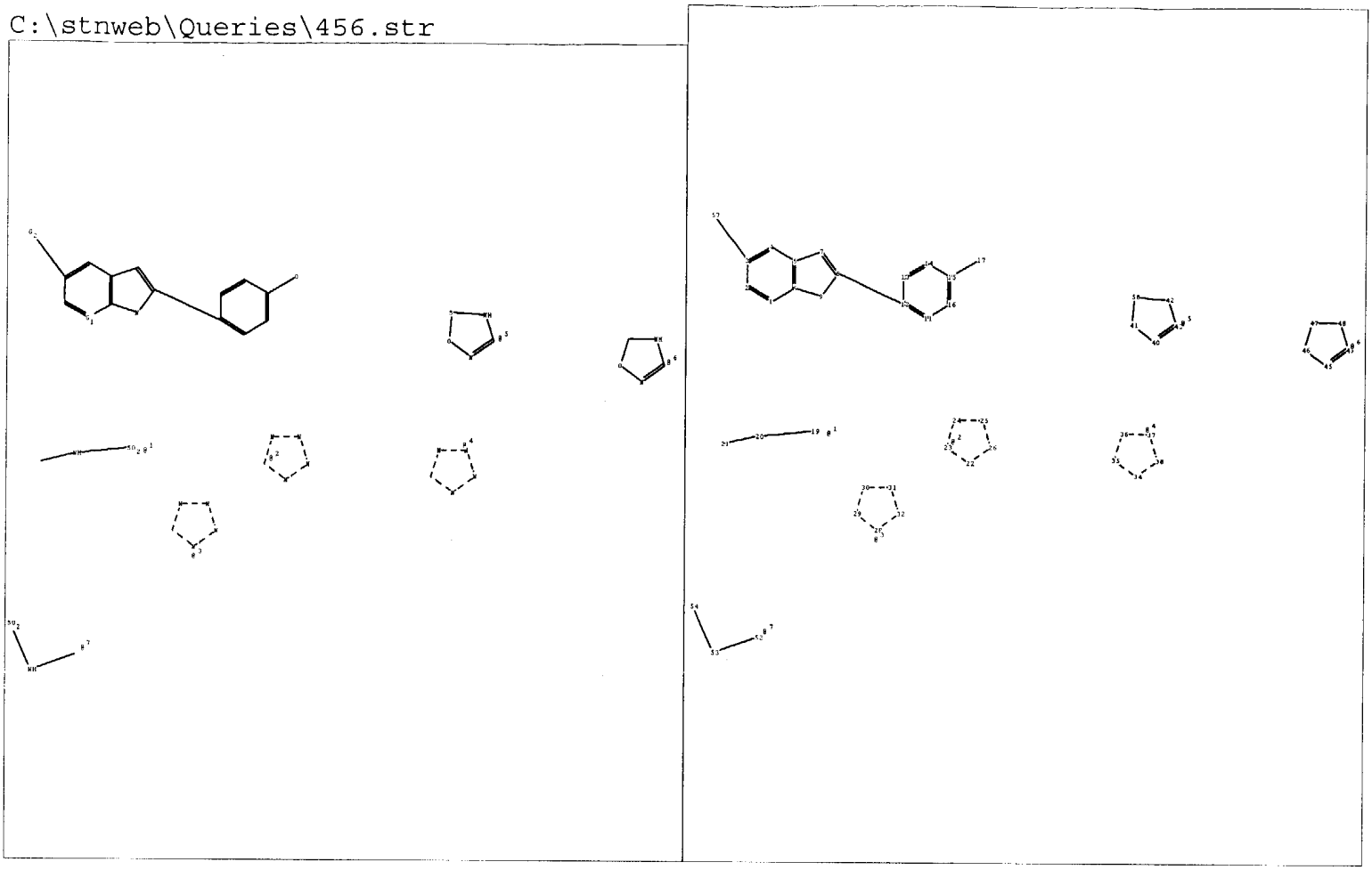
C:\stnweb\Queries\456.str



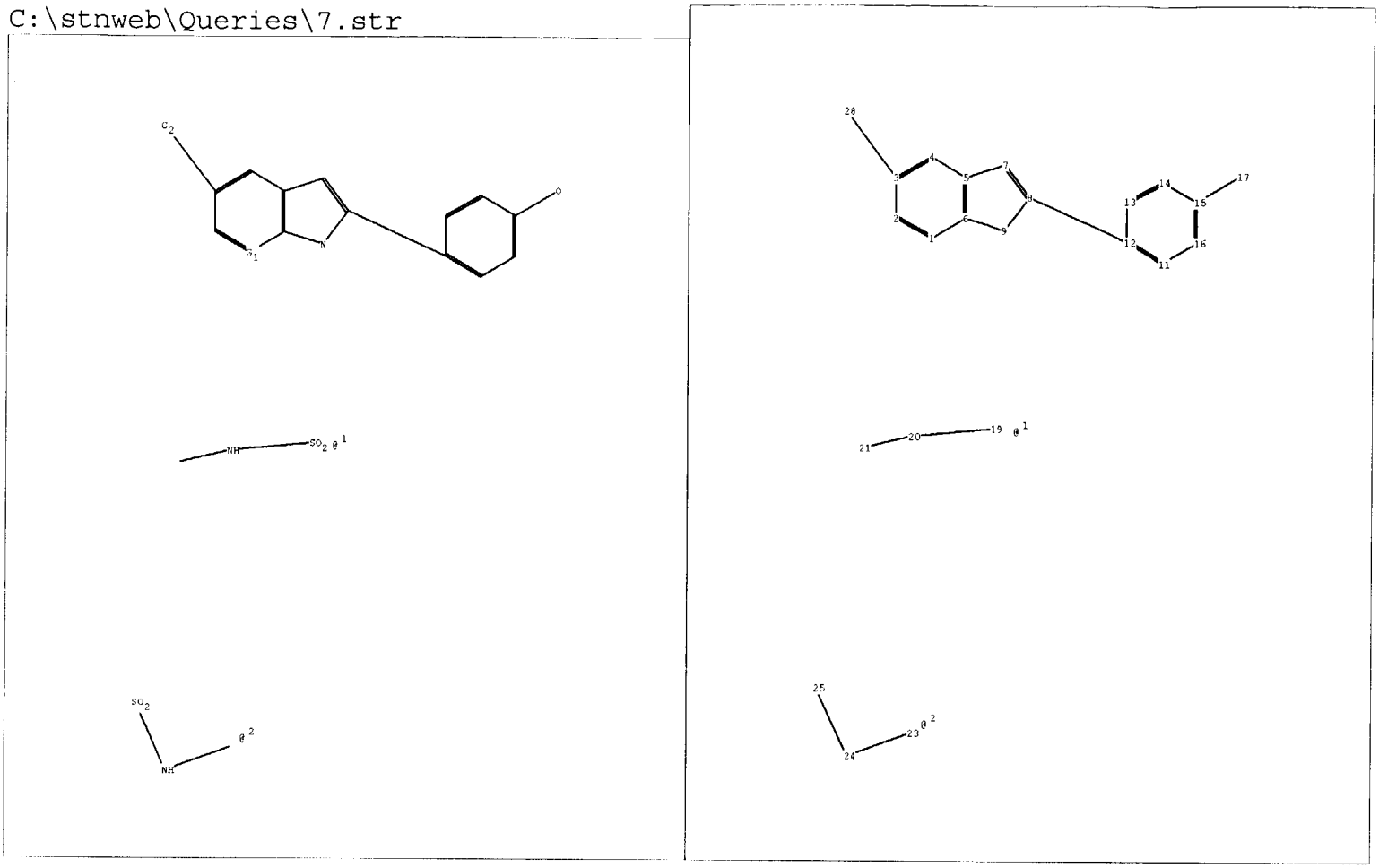
chain nodes :
17 19 20 21 52 53 54 57
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16 22 23 24 25 26 28
29 30 31 32 34 35 36 37 38 40 41 42 43 45 46 47 48 49
58
chain bonds :
3-57 8-12 15-17 19-20 20-21 52-53 53-54
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13
13-14 14-15 15-16 22-23 22-26 23-24 24-25 25-26 28-29 28-32
29-30 30-31 31-32 34-35 34-38 35-36 36-37 37-38 40-41 40-43
41-58 42-43 42-58 45-46 45-49 46-47 47-48 48-49
exact/norm bonds :
1-2 1-6 2-3 3-4 3-57 4-5 5-6 5-7 6-9 7-8 8-9 8-12 15-17
19-20 20-21 22-23 22-26 23-24 24-25 25-26 28-29 28-32 29-30
30-31 31-32 34-35 34-38 35-36 36-37 37-38 40-41 40-43 41-58
42-43 42-58 45-46 45-49 46-47 47-48 48-49 52-53 53-54
normalized bonds :
11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
containing 1 : 11 :

G1:CH,N

G2:[*1],[*2],[*3],[*4],[*5],[*6],[*7]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 19:CLASS
20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 28:Atom
29:Atom 30:Atom 31:Atom 32:Atom 34:Atom 35:Atom 36:Atom 37:Atom
38:Atom 40:Atom 41:Atom 42:Atom 43:Atom 45:Atom 46:Atom 47:Atom
48:Atom 49:Atom 52:CLASS 53:CLASS 54:CLASS 57:CLASS 58:Atom

C:\stnweb\Queries\7.str



chain nodes :
17 19 20 21 23 24 25 28
ring nodes :
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16
chain bonds :
3-28 8-12 15-17 19-20 20-21 23-24 24-25
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13
13-14 14-15 15-16
exact/norm bonds :
1-2 1-6 2-3 3-4 3-28 4-5 5-6 5-7 6-9 7-8 8-9 8-12 15-17
19-20 20-21 23-24 24-25
normalized bonds :
11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
containing 1 : 11 :

G1:CH,N

G2:Hy,[*1],[*2]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:CLASS 19:CLASS
20:CLASS 21:CLASS 23:CLASS 24:CLASS 25:CLASS 28:CLASS

```
* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

  NEWS  1            Web Page URLs for STN Seminar Schedule - N. America
  NEWS  2            "Ask CAS" for self-help around the clock
  NEWS  3  JAN 27    Source of Registration (SR) information in REGISTRY updated
                     and searchable
  NEWS  4  JAN 27    A new search aid, the Company Name Thesaurus, available in
                     CA/CAplus
  NEWS  5  FEB 05    German (DE) application and patent publication number format
                     changes
  NEWS  6  MAR 03    MEDLINE and LMEDLINE reloaded
  NEWS  7  MAR 03    MEDLINE file segment of TOXCENTER reloaded
  NEWS  8  MAR 03    FRANCEPAT now available on STN
  NEWS  9  MAR 29    Pharmaceutical Substances (PS) now available on STN
  NEWS 10  MAR 29    WPIFV now available on STN
  NEWS 11  MAR 29    New monthly current-awareness alert (SDI) frequency in RAPRA
  NEWS 12  APR 26    PROMT: New display field available
  NEWS 13  APR 26    IFIPAT/IFIUDB/IFICDB: New super search and display field
                     available
  NEWS 14  APR 26    LITALERT now available on STN
  NEWS 15  APR 27    NLDB: New search and display fields available
  NEWS 16  May 10    PROUSDDR now available on STN
  NEWS 17  May 19    PROUSDDR: One FREE connect hour, per account, in both May
                     and June 2004
  NEWS 18  May 12    EXTEND option available in structure searching
  NEWS 19  May 12    Polymer links for the POLYLINK command completed in REGISTRY
  NEWS 20  May 17    FRFULL now available on STN

  NEWS EXPRESS  MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
                MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
                AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
  NEWS HOURS    STN Operating Hours Plus Help Desk Availability
  NEWS INTER    General Internet Information
  NEWS LOGIN    Welcome Banner and News Items
  NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
  NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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  result in loss of user privileges and other penalties.

  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 12:29:10 ON 17 MAY 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 12:29:18 ON 17 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2004 American Chemical Society (ACS)
```

```
Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES:   16 MAY 2004  HIGHEST RN 682330-24-1
DICTIONARY FILE UPDATES:  16 MAY 2004  HIGHEST RN 682330-24-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L1      STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1              STR

=> s l1
SAMPLE SEARCH INITIATED 12:37:06 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -    587 TO ITERATE

100.0% PROCESSED     587 ITERATIONS                              50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        10287 TO    13193
PROJECTED ANSWERS:             899 TO     1901

L2            50 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 12:37:12 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  11981 TO ITERATE

100.0% PROCESSED   11981 ITERATIONS                          1375 ANSWERS
SEARCH TIME: 00.00.01

L3          1375 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                 ENTRY    SESSION
FULL ESTIMATED COST                             160.46     160.67

FILE 'HCAPLUS' ENTERED AT 12:37:16 ON 17 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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```

FILE COVERS 1907 - 17 May 2004 VOL 140 ISS 21
FILE LAST UPDATED: 16 May 2004 (20040516/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L4 776 L3

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.36	163.03

FILE 'REGISTRY' ENTERED AT 12:37:21 ON 17 MAY 2004
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 16 MAY 2004 HIGHEST RN 682330-24-1
DICTIONARY FILE UPDATES: 16 MAY 2004 HIGHEST RN 682330-24-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

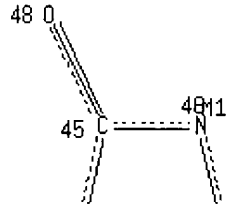
Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=>
L5 STRUCTURE UPLOADED

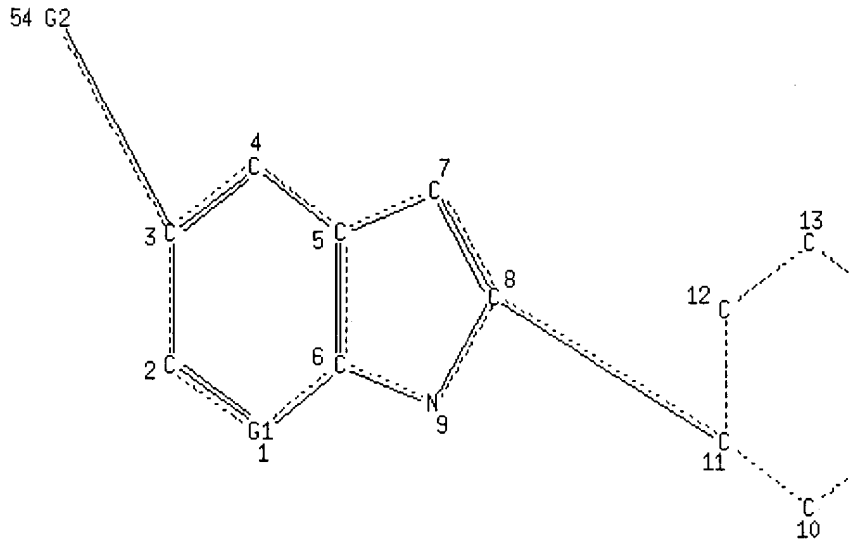
=> l5
L5 IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter "HELP COMMANDS" at an arrow prompt (=>).

=> d l5

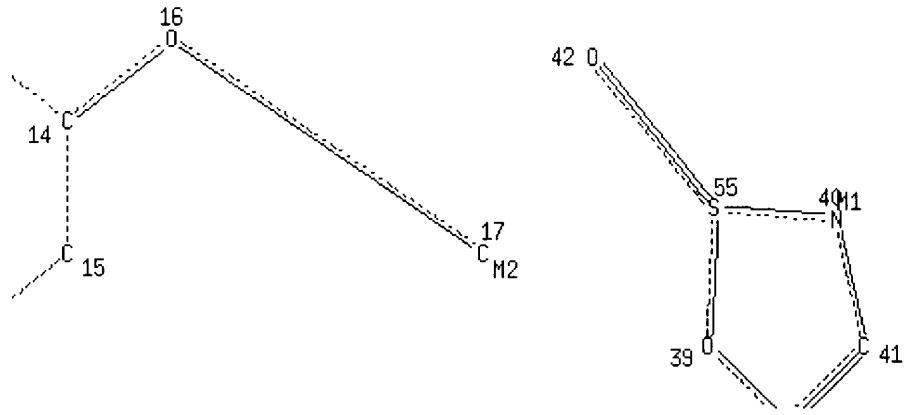
```
L5 HAS NO ANSWERS
L5                STR

=> s 15
SEARCH FAILED DUE TO A STRUCTURE QUERY ERROR
The structure query could not be searched.  Please review and revise
your structure query, especially checking the variable definitions and
attachments. In rare instances the failure may be due to a system
problem. Please contact your local STN Help Desk if you need
assistance.

=>
L6       STRUCTURE UPLOADED

=> d 16
L6 HAS NO ANSWERS
L6                STR

=> s 16
SEARCH FAILED DUE TO A STRUCTURE QUERY ERROR
The structure query could not be searched.  Please review and revise
your structure query, especially checking the variable definitions and
attachments. In rare instances the failure may be due to a system
problem. Please contact your local STN Help Desk if you need
assistance.

=>
L7       STRUCTURE UPLOADED

=> d 17
L7 HAS NO ANSWERS
L7                STR
```



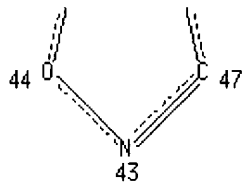

```
Page 1-A
 60 C M1 N 61
Page 1-B
```



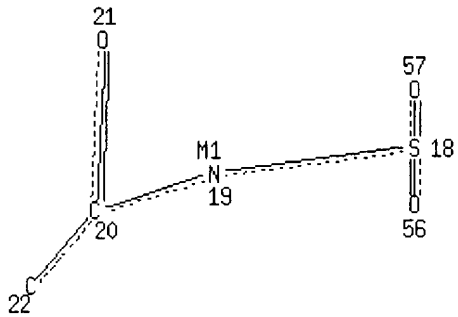
Page 1-C



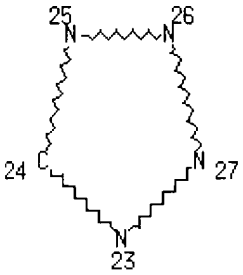
Page 1-D



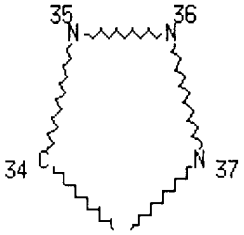
Page 2-A

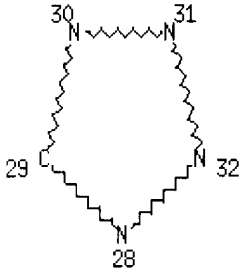


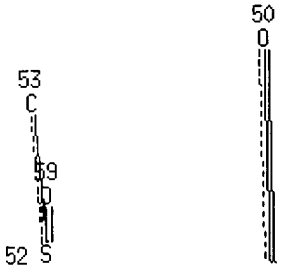
Page 2-C



Page 2-D

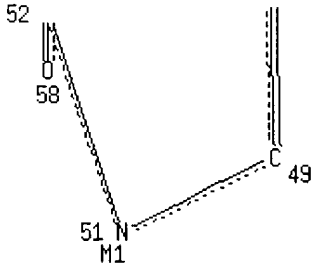






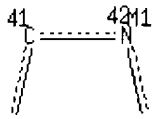
Page 3-C

Page 3-D



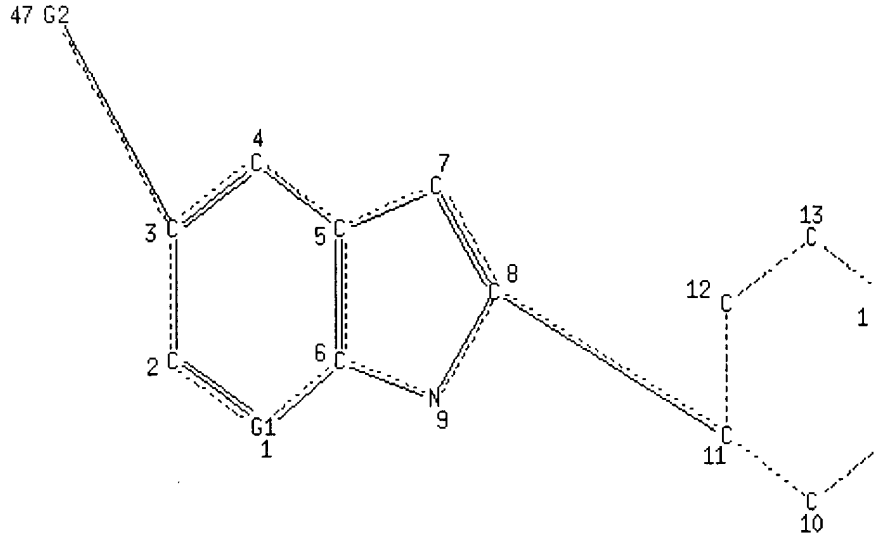
```
Page 4-C
VAR G1=60/61
VAR G2=18/24/28/36/41/47/49
NODE ATTRIBUTES:
HCOUNT  IS M2     AT  17
HCOUNT  IS M1     AT  19
HCOUNT  IS M1     AT  40
HCOUNT  IS M1     AT  46
HCOUNT  IS M1     AT  51
HCOUNT  IS M1     AT  60
NSPEC   IS R      AT   1
NSPEC   IS R      AT   2
NSPEC   IS R      AT   3
NSPEC   IS R      AT   4
NSPEC   IS R      AT   5
NSPEC   IS R      AT   6
NSPEC   IS R      AT   7
NSPEC   IS R      AT   8
NSPEC   IS R      AT   9
NSPEC   IS R      AT  10
NSPEC   IS R      AT  11
NSPEC   IS R      AT  12
NSPEC   IS R      AT  13
NSPEC   IS R      AT  14
NSPEC   IS R      AT  15
NSPEC   IS C      AT  16
NSPEC   IS C      AT  17
NSPEC   IS C      AT  18
NSPEC   IS C      AT  19
NSPEC   IS C      AT  20
NSPEC   IS C      AT  21
NSPEC   IS RC     AT  22
NSPEC   IS R      AT  23
NSPEC   IS R      AT  24
NSPEC   IS R      AT  25
NSPEC   IS R      AT  26
NSPEC   IS R      AT  27
NSPEC   IS R      AT  28
NSPEC   IS R      AT  29
NSPEC   IS R      AT  30
NSPEC   IS R      AT  31
NSPEC   IS R      AT  32
NSPEC   IS R      AT  33
NSPEC   IS R      AT  34
NSPEC   IS R      AT  35
NSPEC   IS R      AT  36
NSPEC   IS R      AT  37
NSPEC   IS R      AT  38
NSPEC   IS R      AT  39
NSPEC   IS R      AT  40
NSPEC   IS R      AT  41
NSPEC   IS C      AT  42
NSPEC   IS R      AT  43
NSPEC   IS R      AT  44
NSPEC   IS R      AT  45
NSPEC   IS R      AT  46
NSPEC   IS R      AT  47
NSPEC   IS C      AT  48
NSPEC   IS C      AT  49
NSPEC   IS C      AT  50
```

```
NSPEC   IS C      AT  51
NSPEC   IS C      AT  52
NSPEC   IS RC     AT  53
NSPEC   IS C      AT  54
NSPEC   IS R      AT  55
NSPEC   IS C      AT  56
NSPEC   IS C      AT  57
NSPEC   IS C      AT  58
NSPEC   IS C      AT  59
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT  16 17 18 19 20 21 22 42 48 49 50 51 52 53 56 57 58
          59
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   1  11
NUMBER OF NODES IS  61

STEREO ATTRIBUTES: NONE


=> s l7
SAMPLE SEARCH INITIATED 12:59:49 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      7 TO ITERATE

100.0% PROCESSED       7 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:            7 TO      298
PROJECTED ANSWERS:               0 TO        0

L8             0 SEA SSS SAM L7

=> s l7 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:s l7 full
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 13:00:03 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    223 TO ITERATE

100.0% PROCESSED     223 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

L9             0 SEA SSS FUL L7

=>
L10     STRUCTURE UPLOADED

=> d l10
L10 HAS NO ANSWERS
L10              STR
```

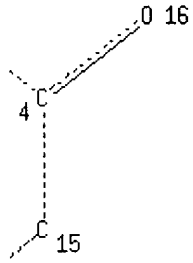


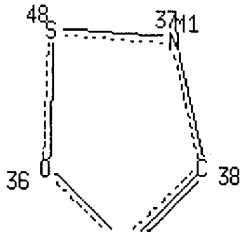

```
Page 1-A
 53 C M1 N 54
```

Page 1-B

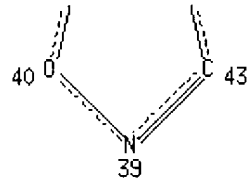


Page 1-C

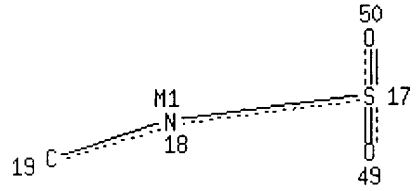




Page 1-D

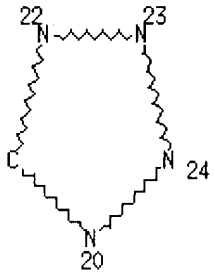


Page 2-A

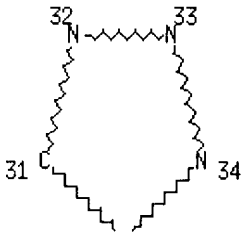


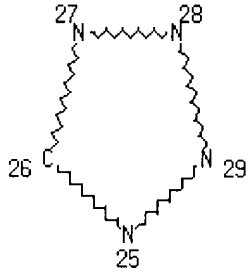
21

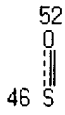
Page 2-C



Page 2-D







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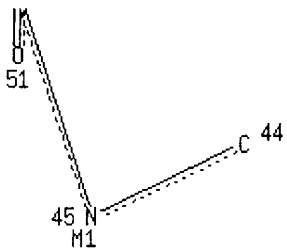
Page 3-D



Page 4-C

```
VAR G1=53/54
VAR G2=17/21/25/33/38/43/44
NODE ATTRIBUTES:
HCOUNT  IS M1     AT  18
HCOUNT  IS M1     AT  37
HCOUNT  IS M1     AT  42
HCOUNT  IS M1     AT  45
HCOUNT  IS M1     AT  53
NSPEC   IS R      AT   1
NSPEC   IS R      AT   2
NSPEC   IS R      AT   3
NSPEC   IS R      AT   4
NSPEC   IS R      AT   5
NSPEC   IS R      AT   6
NSPEC   IS R      AT   7
NSPEC   IS R      AT   8
NSPEC   IS R      AT   9
NSPEC   IS R      AT  10
NSPEC   IS R      AT  11
NSPEC   IS R      AT  12
NSPEC   IS R      AT  13
NSPEC   IS R      AT  14
NSPEC   IS R      AT  15
NSPEC   IS C      AT  16
NSPEC   IS C      AT  17
NSPEC   IS C      AT  18
NSPEC   IS C      AT  19
NSPEC   IS R      AT  20
NSPEC   IS R      AT  21
NSPEC   IS R      AT  22
NSPEC   IS R      AT  23
NSPEC   IS R      AT  24
NSPEC   IS R      AT  25
NSPEC   IS R      AT  26
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NSPEC   IS R      AT  30
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NSPEC   IS R      AT  42
NSPEC   IS R      AT  43
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NSPEC   IS C      AT  45
NSPEC   IS C      AT  46
NSPEC   IS C      AT  47
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NSPEC   IS C      AT  49
NSPEC   IS C      AT  50
NSPEC   IS C      AT  51
NSPEC   IS C      AT  52
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MLEVEL  IS CLASS  AT  16 17 18 19 44 45 46 49 50 51 52
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   1  11
NUMBER OF NODES IS  54

STEREO ATTRIBUTES: NONE


=> s l10
SAMPLE SEARCH INITIATED 13:01:45 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -     19 TO ITERATE

100.0% PROCESSED      19 ITERATIONS                                0 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          119 TO      641
PROJECTED ANSWERS:               0 TO        0

L11           0 SEA SSS SAM L10

=> s l10 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 13:01:50 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    563 TO ITERATE

100.0% PROCESSED     563 ITERATIONS                               0 ANSWERS
SEARCH TIME: 00.00.01

L12           0 SEA SSS FUL L10

=>
L13     STRUCTURE UPLOADED

=> d l13
L13 HAS NO ANSWERS
L13             STR
   Hy 30


 28 C M1 N 29


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Page 1-A
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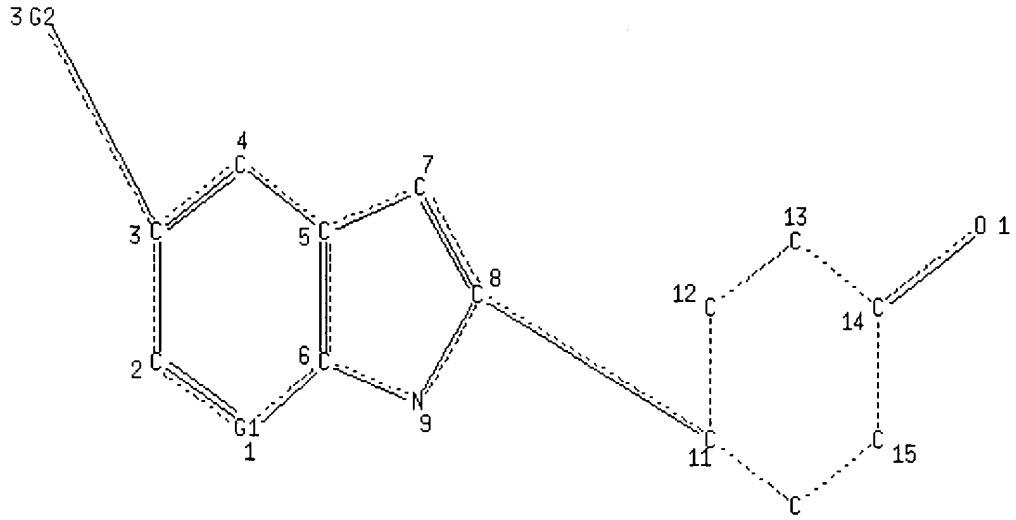

Page 1-B

6

Page 1-C

C
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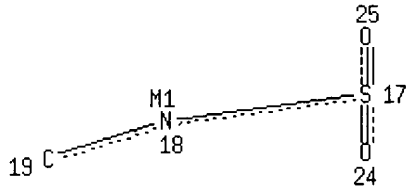
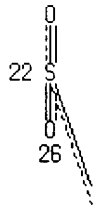


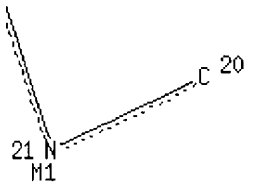
Page 2-B

27

Page 3-A



Page 4-A



Page 4-B
VAR G1=28/29
VAR G2=30/17/20
NODE ATTRIBUTES:
HCOUNT IS M1 AT 18
HCOUNT IS M1 AT 21
HCOUNT IS M1 AT 28
NSPEC IS R AT 1
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DEFAULT MLEVEL IS ATOM
MLEVEL IS CLASS AT 16 17 18 19 20 21 22 24 25 26 27 30
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC I
NUMBER OF NODES IS 30

STEREO ATTRIBUTES: NONE

=> s 113
SAMPLE SEARCH INITIATED 13:04:12 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 1817 TO ITERATE

55.0% PROCESSED 1000 ITERATIONS 0 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

```
FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:         33784 TO    38896
PROJECTED ANSWERS:                0 TO        0

L14             0 SEA SSS SAM L13

=> s l13 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 13:04:16 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  35679 TO ITERATE

100.0% PROCESSED   35679 ITERATIONS                                6 ANSWERS
SEARCH TIME: 00.00.02

L15             6 SEA SSS FUL L13

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                     483.90     646.93

FILE 'HCAPLUS' ENTERED AT 13:04:21 ON 17 MAY 2004
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FILE COVERS 1907 - 17 May 2004  VOL 140 ISS 21
FILE LAST UPDATED: 16 May 2004  (20040516/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> s l15
L16             6 L15

=> s l16 and priestley, e?/au
            64 PRIESTLEY, E?/AU
L17          0 L16 AND PRIESTLEY, E?/AU

=> s l15 and decicco, c?/au
             6 L15
           126 DECICCO, C?/AU
L18          0 L15 AND DECICCO, C?/AU

=> s l15 and hudyma, t?/au
             6 L15
```

```
            45 HUDYMA, T?/AU
L19          0 L15 AND HUDYMA, T?/AU

=> d l15, ibib abs fhitstr, 1-6
YOU HAVE REQUESTED DATA FROM FILE 'REGISTRY' - CONTINUE? (Y)/N:end

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       7.08     654.01

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FILE COVERS 1907 - 17 May 2004  VOL 140 ISS 21
FILE LAST UPDATED: 16 May 2004  (20040516/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d his

     (FILE 'HOME' ENTERED AT 12:29:10 ON 17 MAY 2004)

     FILE 'REGISTRY' ENTERED AT 12:29:18 ON 17 MAY 2004
L1             STRUCTURE UPLOADED
L2           50 S L1
L3         1375 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 12:37:16 ON 17 MAY 2004
L4          776 S L3

     FILE 'REGISTRY' ENTERED AT 12:37:21 ON 17 MAY 2004
L5             STRUCTURE UPLOADED
L6             STRUCTURE UPLOADED
L7             STRUCTURE UPLOADED
L8           0 S L7
L9           0 S L7 FULL
L10            STRUCTURE UPLOADED
L11          0 S L10
L12          0 S L10 FULL
L13            STRUCTURE UPLOADED
L14          0 S L13
L15          6 S L13 FULL

     FILE 'HCAPLUS' ENTERED AT 13:04:21 ON 17 MAY 2004
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L16             6 S L15
L17             0 S L16 AND PRIESTLEY, E?/AU
L18             0 S L15 AND DECICCO, C?/AU
L19             0 S L15 AND HUDYMA, T?/AU

     FILE 'HCAPLUS' ENTERED AT 13:05:52 ON 17 MAY 2004

=> d l16, ibib abs fhitstr, 1-6

L16  ANSWER 1 OF 6  HCAPLUS  COPYRIGHT 2004 ACS on STN
```

Full Text | Citing References

```
ACCESSION NUMBER:          1997:238314  HCAPLUS
DOCUMENT NUMBER:           126:225300
TITLE:                     Preparation of benzazoles as radioprotectors.
INVENTOR(S):               Martin, Roger Francis; Kelly, David Patterson; White,
                           Johnathon Michael
PATENT ASSIGNEE(S):        Peter Maccallum Cancer Institute, Australia
SOURCE:                    PCT Int. Appl., 79 pp.
                           CODEN: PIXXD2
DOCUMENT TYPE:             Patent
LANGUAGE:                  English
FAMILY ACC. NUM. COUNT:    2
PATENT INFORMATION:
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PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9704776	A1	19970213	WO 1996-AU467	19960726
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM				
CA 2228044	AA	19970213	CA 1996-2228044	19960726
AU 9665096	A1	19970226	AU 1996-65096	19960726
AU 717249	B2	20000323		
EP 857067	A1	19980812	EP 1996-924709	19960726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000501697	T2	20000215	JP 1997-507005	19960726
US 6194414	B1	20010227	US 1998-313	19980428
US 6548505	B1	20030415	US 2000-637903	20000814

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PRIORITY APPLN. INFO.:                  AU 1995-4492      A   19950728
                                        WO 1996-AU467     W   19960726
                                        US 1998-313       A2  19980428

OTHER SOURCE(S):           MARPAT 126:225300
GI
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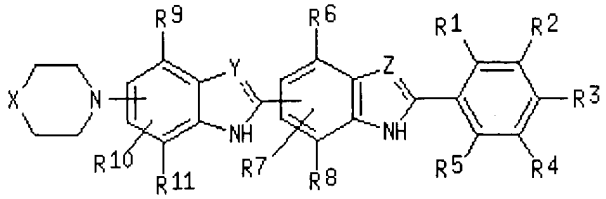


I

```
AB    Use of title compds. [I; X = (substituted) aminoalkyl, alkylene,
      interactive group; Y, Z = N, O, S CR; R = H, (substituted) alkyl, alkenyl;
```

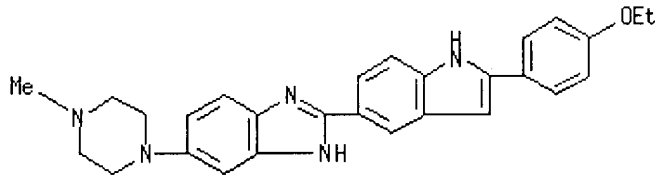
dotted line = double bond unless the attached Y or Z group = O or S in which case it is a single bond; d R1-R11 = H, a sterically hindering group and an electron donating group; any 2 of R1 R11, Y, Z, NH and R may form a (substituted) ring which may contain heteroatoms, provided that ≥1 of R1-R11 = electron donating group and that when X = NMe, Y and Z = N and R1, R2, and R4-R11 = H, then R3 ≠ OH or OCH2Me] as radioprotectants, is claimed. Thus, 2-amino-4-(1-piperidinyl)amine and 4-dimethylamino-1-[5-(iminoethoxy)methylbenzimidazol-2-yl]benzene hydrochloride (prepn. given) were refluxed 3 h in HOAc/EtOH to give 4-dimethylamino-1-[5-[5-(piperidin-1-yl)benzimidazol-2-yl]benzimidazol-2-yl]benzene. The latter at 17 μM in cell culture studies gave a protection factor of 2.7-2.8.

IT **188247-18-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzazoles as radioprotectors)

RN 188247-18-9 HCAPLUS

CN 1H-Benzimidazole, 2-[2-(4-ethoxyphenyl)-1H-indol-5-yl]-5-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1995:647297 HCAPLUS
DOCUMENT NUMBER: 123:143666
TITLE: Synthesis of 5- and 6-membered heterocycles by a strategy combining SNAr and SRN1 reactions
AUTHOR(S): Beugelmans, Rene; Chbani, Mohamed
CORPORATE SOURCE: Institut Chimie Substances Naturelles, CNRS, Gif-sur-Yvette, 91198, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1995), 132(3), 306-13
CODEN: BSCFAS; ISSN: 0037-8968
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: French

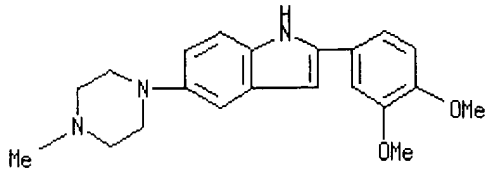
AB The SRN1 mechanism is compatible with many substituents on the benzenic substrate and allows SRN1 reactions to be combined with SNAr reactions in a strategy which brings together their corresponding synthetic advantages. Thus, compds. contg. benzene fused to 5- or 6-membered heterocycles contg. N (indoles), N and P (benzazaphospholes) and N and S (benzothiazines) are readily obtained.

IT **166818-63-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of 5- and 6-membered heterocycles by a strategy combining SNAr and SRN1 reactions)

RN 166818-63-9 HCAPLUS

CN 1H-Indole, 2-(3,4-dimethoxyphenyl)-5-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



L16 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1991:679809 HCAPLUS
DOCUMENT NUMBER: 115:279809
TITLE: Preparation of 2-phenylindole derivatives as lipoxygenase inhibitors
INVENTOR(S): Suzuki, Yasushi; Hasegawa, Yukio; Sato, Michitaka; Yamamoto, Norio; Hasumi, Koichi; Shidara, Kazuhiro; Miyasaka, Katsuhiko; Kenjo, Takashi; Miyazawa, Katsuhiko; Et, Al.
PATENT ASSIGNEE(S): Teikoku Hormone Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03188064	A2	19910816	JP 1989-326634	19891216
JP 2894617	B2	19990524		

PRIORITY APPLN. INFO.: JP 1989-326634 19891216
OTHER SOURCE(S): MARPAT 115:279809
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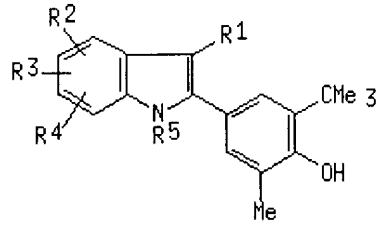

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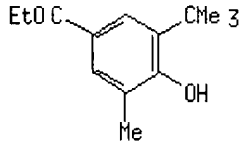
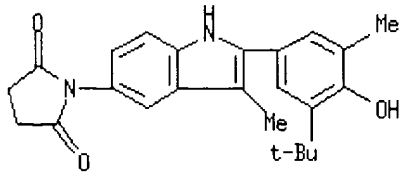


II

AB 2-Phenylindole derivs. [I; R1 = H, alkyl; R2-R4 = H, halo, alkyl, alkoxy, etc.; R5 = H, alkyl], effective lipoxygenase and cyclooxygenase inhibitors, are prepd. Refluxing a mixt. of 60 g ketone II and 55 g 4-AcNHC6H4NHNH2.HCl in Me2CHOH gave 78 g I (R1 = Me, R2 = R3 = R5 = H, R4 = 5-AcNH), which showed 82% inhibition of 5-HETE at 10 μM. Also prepd. and tested were 25 addnl. I.

IT **137614-73-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as lipoxygenase inhibitor)

RN 137614-73-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-[2-[3-(1,1-dimethylethyl)-4-hydroxy-5-methylphenyl]-3-methyl-1H-indol-5-yl]- (9CI) (CA INDEX NAME)



L16 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1990:571973 HCAPLUS
DOCUMENT NUMBER: 113:171973
TITLE: Nonsteroidal cardiotonics. 3. New 4,5-dihydro-6-(1H-indol-5-yl)pyridazin-3(2H)-ones and related compounds with positive inotropic activities
AUTHOR(S): Mertens, Alfred; Friebe, Walter Gunar; Mueller-Beckmann, Bernd; Kampe, Wolfgang; Kling, Lothar; Von der Saal, Wolfgang
CORPORATE SOURCE: Dep. Chem., Boehringer Mannheim G.m.b.H., Mannheim, 6800, Germany
SOURCE: Journal of Medicinal Chemistry (1990), 33(10), 2870-5
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:171973
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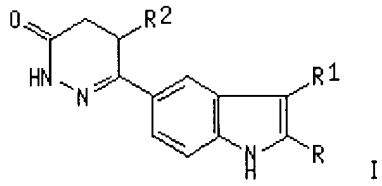
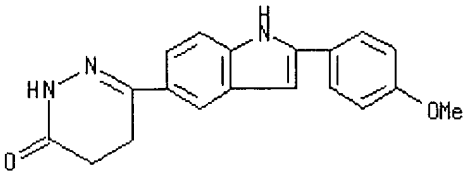


I

AB A series of substituted indolyldihydropyridazinones I (R = Ph, CO2Et, 3-, 4-pyridyl, 4-MeC6H4; R1 = H, Me, Et, CHMe2; R2 = H, Me) and related compds. were synthesized and evaluated for pos. inotropic activity. In rats, most of these indole derivs. produced a dose-related increase in myocardial contractility with little effect on heart rate and blood pressure. I (R = 4-pyridyl, R1 = H; R2 = Me), (II, BM 50.0430), was further investigated in cats. The increase in contractility in this animal model was not mediated via stimulation of β-adrenergic receptors. After oral administration of 1 mg/kg to conscious dogs, II and pimobendan were still active after 6.5 h. However, the cardiotonic effect of II was at least 2-fold that of pimobendan after this period of time. The structural requirements for optimal cardiotonic activity within this class of indole derivs. are a heterocyclic arom. ring in position 2, a hydrogen or a Me group in position 3 and a dihydropyridazinone ring system in position 5 of the indole.

IT **129593-70-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and inotropic activity of)

RN 129593-70-0 HCAPLUS
CN 3(2H)-Pyridazinone, 4,5-dihydro-6-[2-(4-methoxyphenyl)-1H-indol-5-yl]- (9CI) (CA INDEX NAME)



L16 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1984:209577 HCAPLUS
DOCUMENT NUMBER: 100:209577
TITLE: Syntheses of antimicrobial biscationic 2-(phenoxyphenyl)indoles and -1-benzofurans
AUTHOR(S): Dann, Otto; Ruff, Juergen; Wolff, Hans Peter; Griessmeier, Helmut
CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Erlangen-Nurnberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Liebigs Annalen der Chemie (1984), (3), 409-25
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 100:209577
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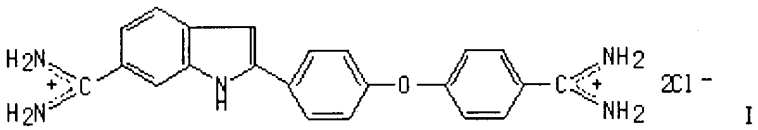

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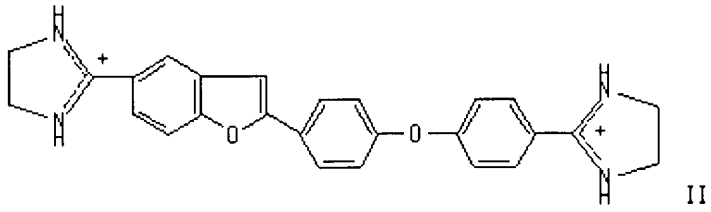

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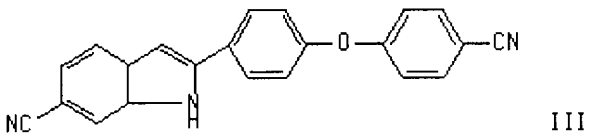


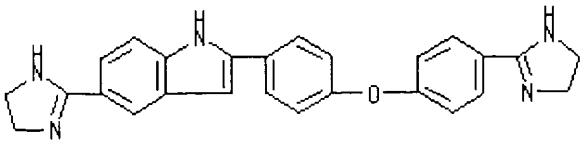
III

AB Ten 2-(phenoxyphenyl)indoles and 4 2-(phenoxyphenyl)-1-benzofurans with terminal amidinium or imidazolinium groups, e.g. I and II, were prepd. as antimicrobials. Thus, 4,2-Br(O2N)C6H3CH2COC6H4(OC6H4Br-p)-p, prepd. from 4,3-Br(O2N)C6H3CH2CO2H and p-BrC6H4OPh, underwent reductive cyclization followed by reaction with CuCN to give the indole III which was aminated with NH3 to give I.

IT **90178-91-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 90178-91-9 HCAPLUS

CN 1H-Indole, 5-(4,5-dihydro-1H-imidazol-2-yl)-2-[4-[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)

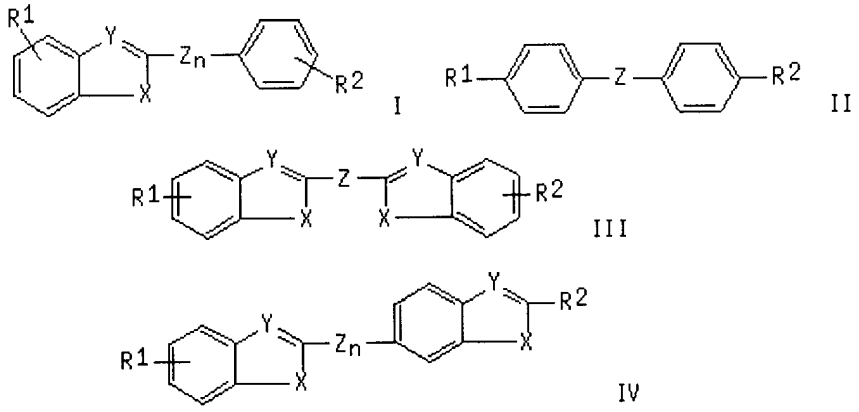


2 HCl

L16 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1983:569063 HCAPLUS
DOCUMENT NUMBER: 99:169063
TITLE: Inhibitory activity of diarylamidine derivatives on murine leukemia L1210 cell growth
AUTHOR(S): Balzarini, Jan; De Clercq, Erik; Dann, Otto
CORPORATE SOURCE: Rega Inst. Med. Res., Kathol. Univ. Leuven, Louvain, B-3000, Belg.
SOURCE: Investigational New Drugs (1983), 1(2), 103-15
CODEN: INNDDK; ISSN: 0167-6997
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

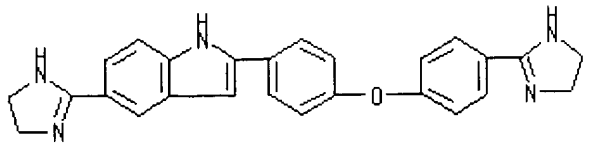


AB A series of 96 diarylamidine and diarylamidazoline derivs., mostly I (X = NH, O, S, SO2, CH2; Y = CH, CNH2, N, etc.; R1 and R2 = amidino, imidazolino, etc.; Z = CH:CH, PhO, CONH, NH, etc; n = 0 or 1), II (R1 and R2 = amidino or imidazolino; Z = CH:CH, NHN:N, etc.), III (X = O, S, or NH; Y = CH, CMe, N; R1 and R2 = amidino or imidazolino), and IV (X = NH; Y = CH; Z = CH:CH; R1 and R2 = imidazolino; n = 0 or 1), were tested for antitumor activity against murine leukemia L1210 cells. Structure-function anal. revealed that the antitumor activity of the diarylamidines depended on the planarity of the mol., the presence of amidino or, preferably, imidazolino groups or both aryl moieties, the nature of the bridge connecting the 2 aryl moieties, and the nature of the aryl moieties (preferably benzofuren or benzo[b]thiophene. Thus, (6-(2-imidazolin-2-yl)-2-[4-(2-imidazolin-2-yl)phenyl]benzo[b]thiophene (I; X = S; Y = CH; R1 = R2 = imidazolino; n = 0) [73819-21-3] was the most potent inhibitor of L1210 cell growth. The inhibitory effects of diarylamidines on L1210 cell proliferation may at least partly involve an

inhibition of DNA synthesis. 2,2'-Vinylenedi-1-benzofuran-5-carboxamidine (III; X = O; Y = CH; Z = CH:CH; R1 = R2 = amidino) [65426-90-6] exhibited potent antitumor activity in vitro and in vivo in L1210-inoculated mice.

IT **87559-26-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(neoplasm inhibitory activity of, structure in relation to)

RN 87559-26-0 HCAPLUS
CN 1H-Indole, 5-(4,5-dihydro-1H-imidazol-2-yl)-2-[4-[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]phenyl]- (9CI) (CA INDEX NAME)



=> file caol

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	35.62	689.63

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.16	-4.16

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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

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=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.42	690.05

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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

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  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

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=> d his

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     FILE 'REGISTRY' ENTERED AT 12:29:18 ON 17 MAY 2004
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L2              50 S L1
L3            1375 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 12:37:16 ON 17 MAY 2004
L4             776 S L3

     FILE 'REGISTRY' ENTERED AT 12:37:21 ON 17 MAY 2004
L5             STRUCTURE UPLOADED
L6             STRUCTURE UPLOADED
L7             STRUCTURE UPLOADED
L8               0 S L7
L9               0 S L7 FULL
L10            STRUCTURE UPLOADED
L11              0 S L10
L12              0 S L10 FULL
L13            STRUCTURE UPLOADED
L14              0 S L13
L15              6 S L13 FULL

     FILE 'HCAPLUS' ENTERED AT 13:04:21 ON 17 MAY 2004
L16              6 S L15
L17              0 S L16 AND PRIESTLEY, E?/AU
L18              0 S L15 AND DECICCO, C?/AU
L19              0 S L15 AND HUDYMA, T?/AU

     FILE 'HCAPLUS' ENTERED AT 13:05:52 ON 17 MAY 2004

     FILE 'CAOLD' ENTERED AT 13:07:24 ON 17 MAY 2004

     FILE 'CAOLD' ENTERED AT 13:07:26 ON 17 MAY 2004

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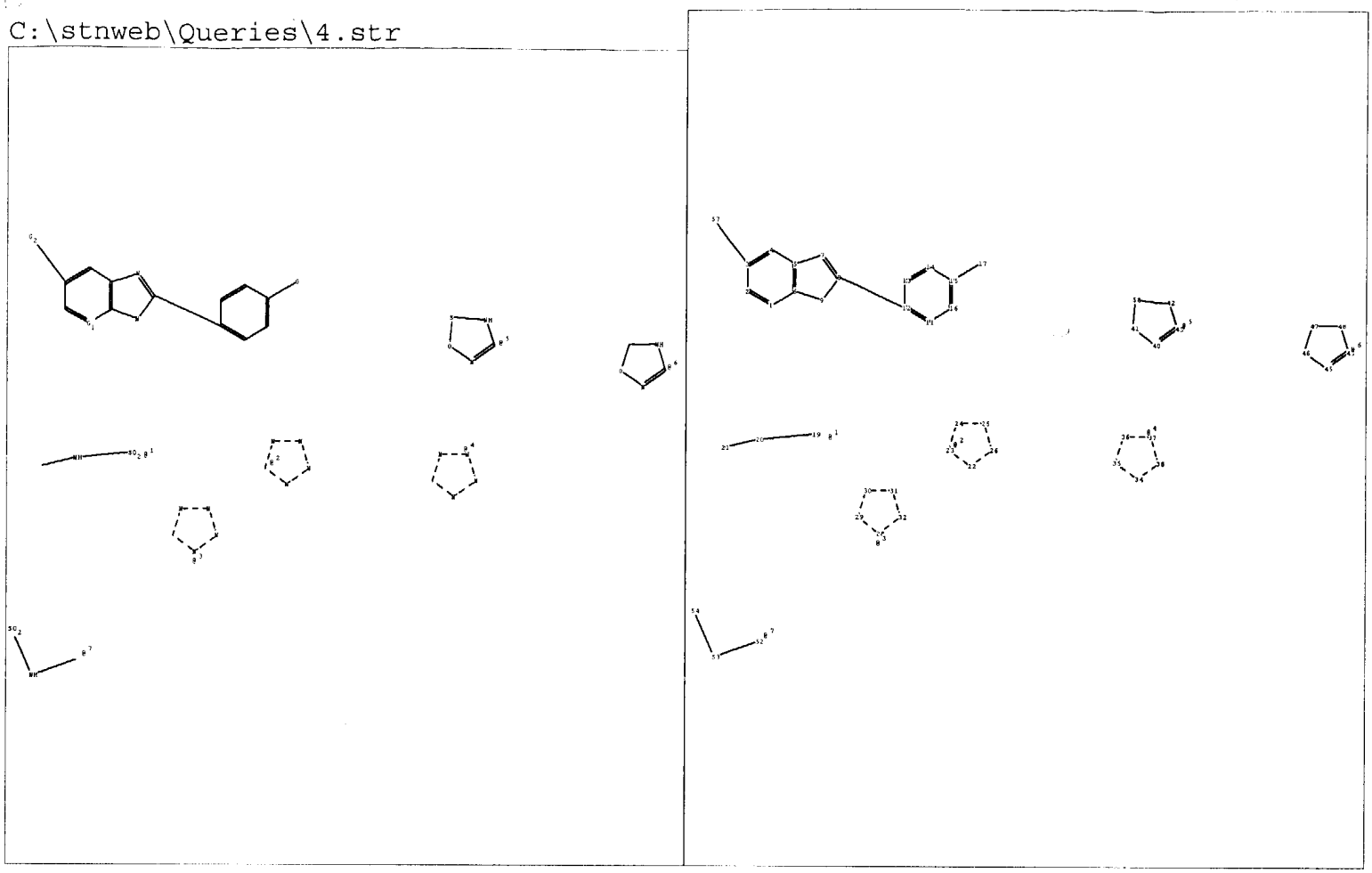

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ring nodes :
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58
chain bonds :
3-57 8-12 15-17 19-20 20-21 52-53 53-54
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13
13-14 14-15 15-16 22-23 22-26 23-24 24-25 25-26 28-29 28-32
29-30 30-31 31-32 34-35 34-38 35-36 36-37 37-38 40-41 40-43
41-58 42-43 42-58 45-46 45-49 46-47 47-48 48-49
exact/norm bonds :
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19-20 20-21 22-23 22-26 23-24 24-25 25-26 28-29 28-32 29-30
30-31 31-32 34-35 34-38 35-36 36-37 37-38 40-41 40-43 41-58
42-43 42-58 45-46 45-49 46-47 47-48 48-49 52-53 53-54
normalized bonds :
11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
containing 1 : 11 :

G1:CH,N

G2:Cy,[*1],[*2],[*3],[*4],[*5],[*6],[*7]

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom
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20:CLASS 21:CLASS 22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 28:Atom
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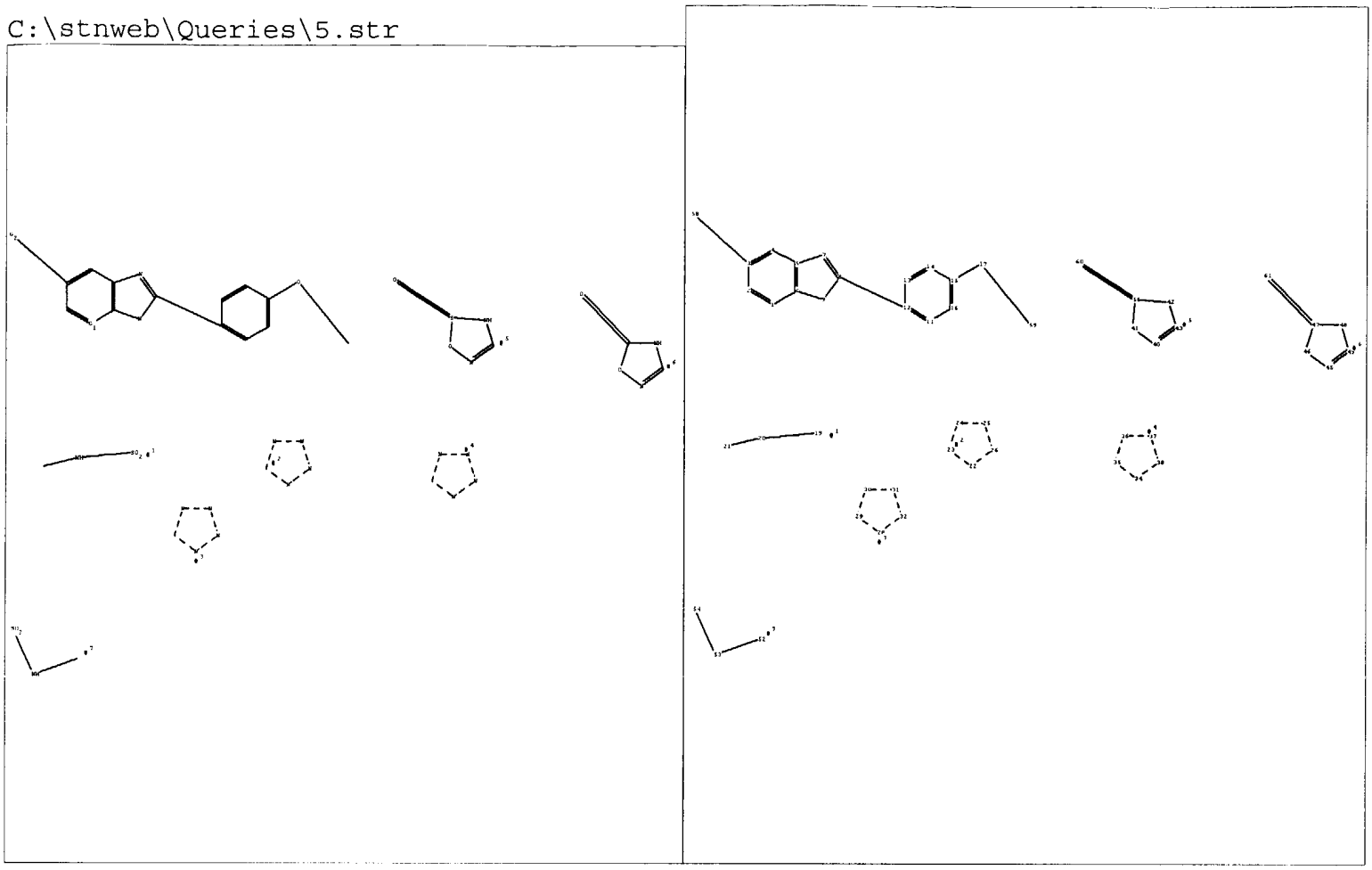

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56
chain bonds :
3-58 8-12 15-17 17-59 19-20 20-21 47-61 52-53 53-54 56-60
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9 11-12 11-16 12-13
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41-56 42-43 42-56 45-46 45-49 46-47 47-48 48-49
exact/norm bonds :
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17-59 19-20 20-21 22-23 22-26 23-24 24-25 25-26 28-29 28-32
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53-54 56-60
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11-12 11-16 12-13 13-14 14-15 15-16
isolated ring systems :
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G1:CH,N

G2:[*1],[*2],[*3],[*4],[*5],[*6],[*7]

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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

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 NEWS  2           "Ask CAS" for self-help around the clock
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                   and searchable
 NEWS  4  JAN 27   A new search aid, the Company Name Thesaurus, available in
                   CA/CAplus
 NEWS  5  FEB 05   German (DE) application and patent publication number format
                   changes
 NEWS  6  MAR 03   MEDLINE and LMEDLINE reloaded
 NEWS  7  MAR 03   MEDLINE file segment of TOXCENTER reloaded
 NEWS  8  MAR 03   FRANCEPAT now available on STN
 NEWS  9  MAR 29   Pharmaceutical Substances (PS) now available on STN
 NEWS 10  MAR 29   WPIFV now available on STN
 NEWS 11  MAR 29   New monthly current-awareness alert (SDI) frequency in RAPRA
 NEWS 12  APR 26   PROMT: New display field available
 NEWS 13  APR 26   IFIPAT/IFIUDB/IFICDB: New super search and display field
                   available
 NEWS 14  APR 26   LITALERT now available on STN
 NEWS 15  APR 27   NLDB: New search and display fields available
 NEWS 16  May 10   PROUSDDR now available on STN
 NEWS 17  May 19   PROUSDDR: One FREE connect hour, per account, in both May
                   and June 2004
 NEWS 18  May 12   EXTEND option available in structure searching
 NEWS 19  May 12   Polymer links for the POLYLINK command completed in REGISTRY
 NEWS 20  May 17   FRFULL now available on STN

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               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
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                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

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STRUCTURE FILE UPDATES: 16 MAY 2004 HIGHEST RN 682330-24-1
DICTIONARY FILE UPDATES: 16 MAY 2004 HIGHEST RN 682330-24-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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L1 STR

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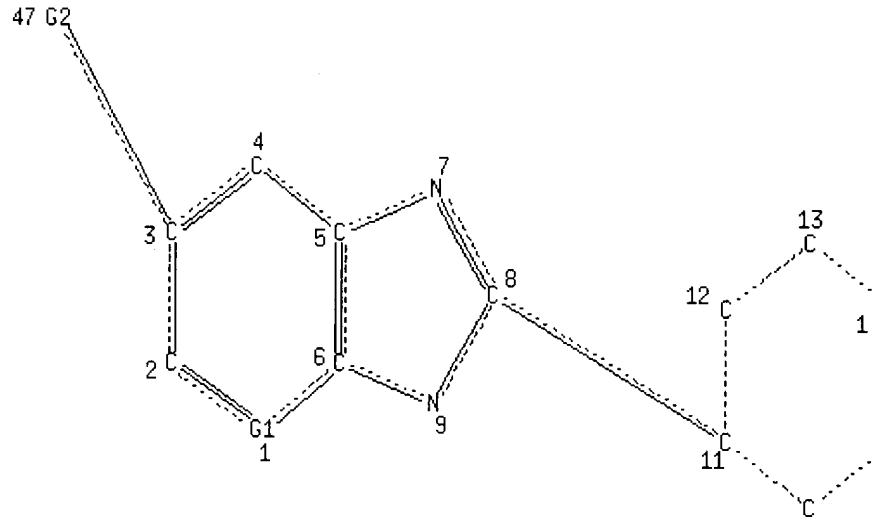
Page 1-A

Cy 55

53 C M1 N 54

Page 1-B



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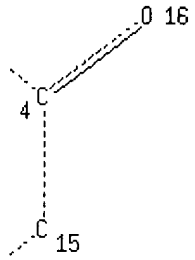

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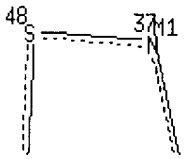

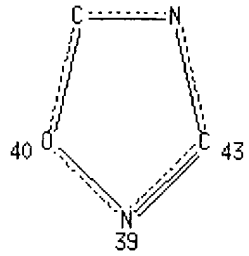

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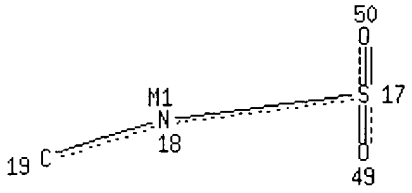

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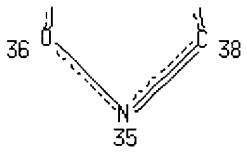

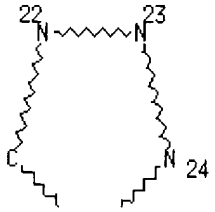

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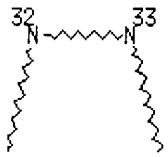

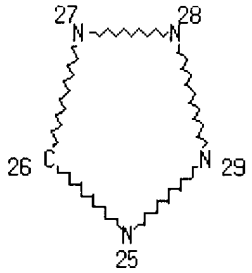

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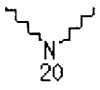

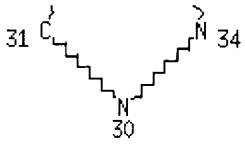

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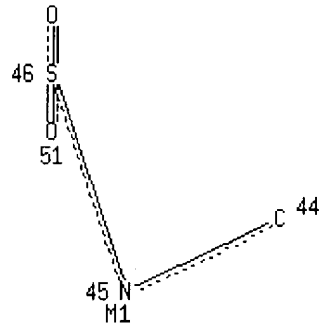

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HCOUNT IS M1 AT 37
HCOUNT IS M1 AT 42
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DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS  55

STEREO ATTRIBUTES: NONE


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SAMPLE SCREEN SEARCH COMPLETED -    617 TO ITERATE

100.0% PROCESSED     617 ITERATIONS                          34 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        10850 TO    13830
PROJECTED ANSWERS:             331 TO     1029

L2            34 SEA SSS SAM L1

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L3                STR
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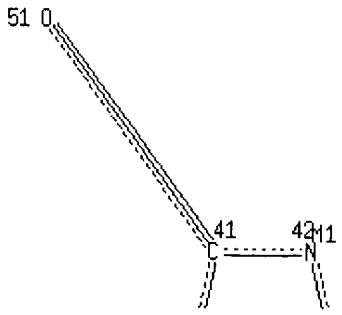


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Page 1-A
 56
Page 1-B
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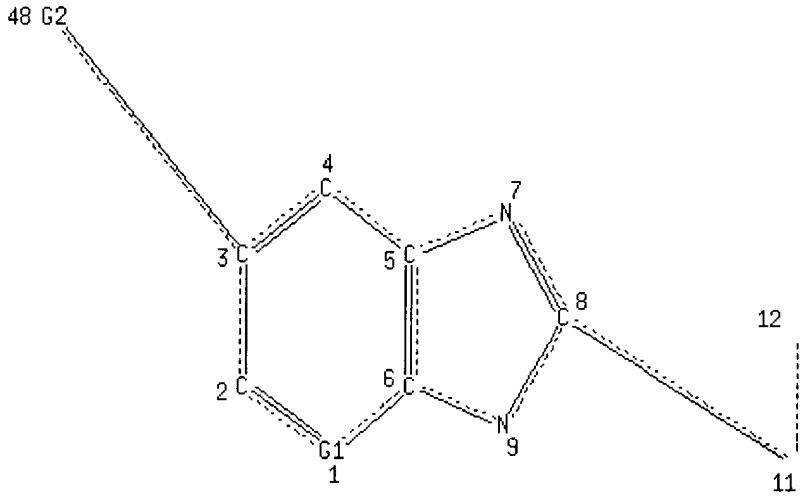

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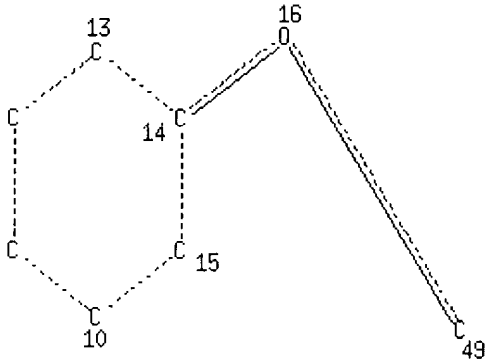

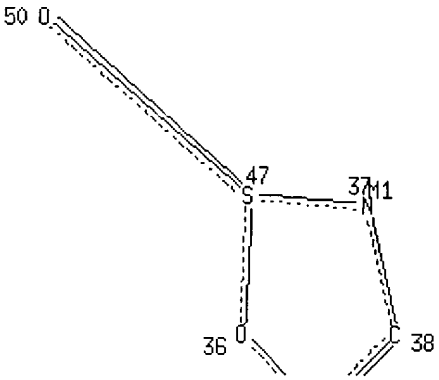

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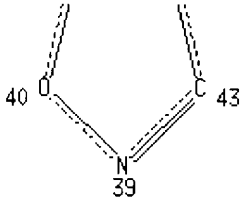

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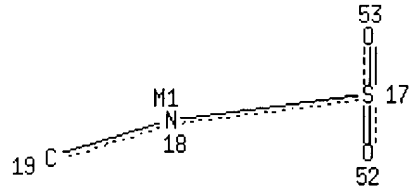

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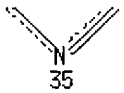

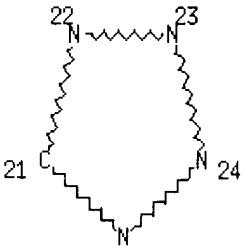

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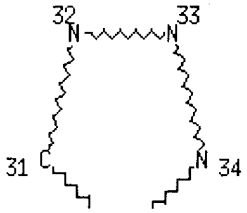

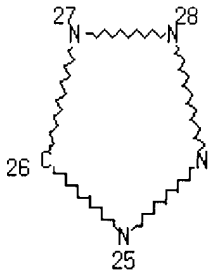

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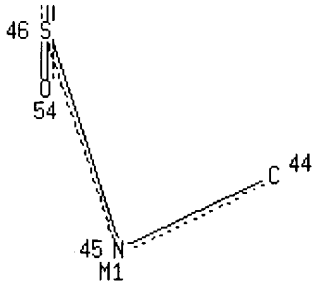
Page 3-D



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
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NUMBER OF NODES IS  57

STEREO ATTRIBUTES: NONE


=> s l3
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SAMPLE SCREEN SEARCH COMPLETED -     13 TO ITERATE

100.0% PROCESSED      13 ITERATIONS                              10 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:           44 TO      476
PROJECTED ANSWERS:              11 TO      389

L4            10 SEA SSS SAM L3

=> s l3 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 14:49:08 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    232 TO ITERATE

100.0% PROCESSED     232 ITERATIONS                             161 ANSWERS
SEARCH TIME: 00.00.01

L5           161 SEA SSS FUL L3

=> file hcaplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                               158.78     158.99

FILE 'HCAPLUS' ENTERED AT 14:49:12 ON 17 MAY 2004
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FILE COVERS 1907 - 17 May 2004 VOL 140 ISS 21
FILE LAST UPDATED: 16 May 2004 (20040516/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 15
L6 3 L5

=> d 16, ibib abs fhitstr, 1-3

L6 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 2003:261620 HCAPLUS
DOCUMENT NUMBER: 138:287673
TITLE: Preparation of phenylbenzimidazole compounds useful for treating hepatitis C virus
INVENTOR(S): Priestley, Eldon Scott; Decicco, Carl P.; Hudyma, Thomas W.; Zheng, Xiaofan
PATENT ASSIGNEE(S): Bristol-Myers Squibb Company, USA
SOURCE: PCT Int. Appl., 74 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003026587	A2	20030403	WO 2002-US30989	20020926
WO 2003026587	A3	20031106		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003134853	A1	20030717	US 2002-259041	20020926
US 2004067976	A1	20040408	US 2003-648873	20030827

PRIORITY APPLN. INFO.: US 2001-324874P P 20010926
US 2002-259041 B1 20020926

OTHER SOURCE(S): MARPAT 138:287673
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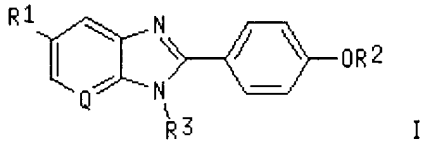

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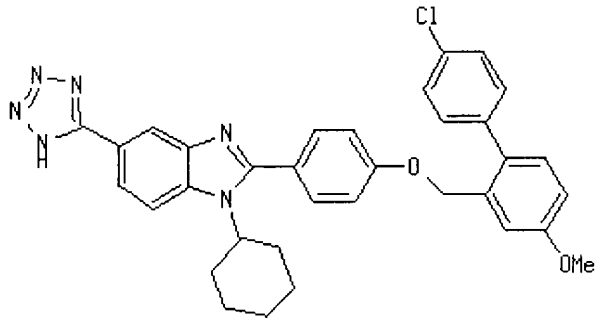


II

AB Compds. of formula I [Q = CH, N; R1 = tetrazolyl, MeCONHSO2, PhCONHSO2, etc.; R2 = CH2-aryl, CHPh2, etc.; R3 = cycloalkyl] are prepd. which are useful in treating viral hepatitis C. Thus, II was prepd. and had an IC50 of 0.14 μM against HCV NS5B RdRp (RNA-dependent RNA polymerase).

IT **503857-56-5P**

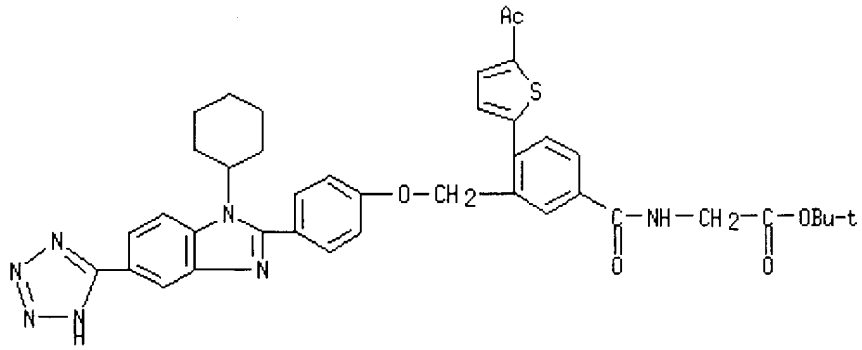
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of phenylbenzimidazole compds. for treating hepatitis C viral infection)

RN 503857-56-5 HCAPLUS

CN Glycine, N-[4-(5-acetyl-2-thienyl)-3-[[4-[1-cyclohexyl-5-(1H-tetrazol-5-yl)-1H-benzimidazol-2-yl]phenoxy]methyl]benzoyl]-, 1,1-dimethylethyl ester, mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 503857-55-4
CMF C40 H41 N7 O5 S



CM 2

CRN 76-05-1
CMF C2 H F3 O2

PRIORITY APPLN. INFO.: JP 2001-193786 A 20010626
JP 2001-351537 A 20011116
WO 2002-JP6405 W 20020626

OTHER SOURCE(S): MARPAT 138:66657

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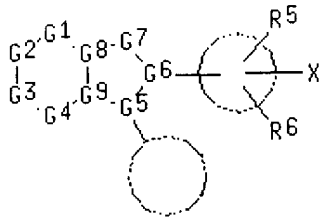


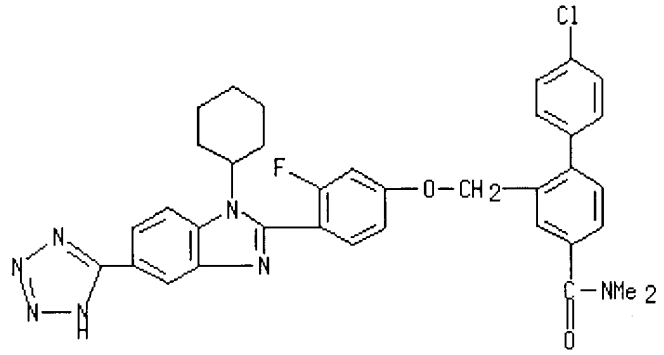
I

AB Fused cyclic compds. represented by the following general formula [I] or pharmaceutically acceptable salts thereof and remedies for hepatitis C contg. these compds.: I wherein each symbol is as defined in the description. Because of having an effect against hepatitis C virus (HVC) based on an HCV polymerase inhibitory effect, these compds. are useful as remedies or preventives for hepatitis C.

IT **480462-18-8P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(fused cyclic compds. as hepatitis C virus polymerase inhibitors and antiviral agents)

RN 480462-18-8 HCAPLUS

CN [1,1'-Biphenyl]-4-carboxamide, 4'-chloro-2-[[4-[1-cyclohexyl-5-(1H-tetrazol-5-yl)-1H-benzimidazol-2-yl]-3-fluorophenoxy]methyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file caold

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	18.99	177.98

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.08	-2.08

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FILE 'CAOLD' ENTERED AT 14:50:21 ON 17 MAY 2004
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FILE COVERS 1907-1966
FILE LAST UPDATED:  01 May 1997 (19970501/UP)

  This file contains CAS Registry Numbers for easy and accurate
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  assignees, and patent information, e.g., patent numbers, are
  now searchable from 1907-1966.  TIFF images of CA abstracts
  printed between 1907-1966 are available in the PAGE
  display formats.

  This file supports REG1stRY for direct browsing and searching of
  all substance data from the REGISTRY file.  Enter HELP FIRST for
  more information.

=> d his

     (FILE 'HOME' ENTERED AT 14:43:44 ON 17 MAY 2004)

     FILE 'REGISTRY' ENTERED AT 14:43:56 ON 17 MAY 2004
L1              STRUCTURE UPLOADED
L2           34 S L1
L3              STRUCTURE UPLOADED
L4           10 S L3
L5          161 S L3 FULL

     FILE 'HCAPLUS' ENTERED AT 14:49:12 ON 17 MAY 2004
L6            3 S L5

     FILE 'CAOLD' ENTERED AT 14:50:21 ON 17 MAY 2004

=> s l5
L7            0 L5

=>
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* * * * * * * * * *   Welcome to STN International   * * * * * * * * * *

 NEWS  1            Web Page URLs for STN Seminar Schedule - N. America
 NEWS  2            "Ask CAS" for self-help around the clock
 NEWS  3  JAN 27    Source of Registration (SR) information in REGISTRY updated
                    and searchable
 NEWS  4  JAN 27    A new search aid, the Company Name Thesaurus, available in
                    CA/CAplus
 NEWS  5  FEB 05    German (DE) application and patent publication number format
                    changes
 NEWS  6  MAR 03    MEDLINE and LMEDLINE reloaded
 NEWS  7  MAR 03    MEDLINE file segment of TOXCENTER reloaded
 NEWS  8  MAR 03    FRANCEPAT now available on STN
 NEWS  9  MAR 29    Pharmaceutical Substances (PS) now available on STN
 NEWS 10  MAR 29    WPIFV now available on STN
 NEWS 11  MAR 29    New monthly current-awareness alert (SDI) frequency in RAPRA
 NEWS 12  APR 26    PROMT: New display field available
 NEWS 13  APR 26    IFIPAT/IFIUDB/IFICDB: New super search and display field
                    available
 NEWS 14  APR 26    LITALERT now available on STN
 NEWS 15  APR 27    NLDB: New search and display fields available
 NEWS 16  May 10    PROUSDDR now available on STN
 NEWS 17  May 19    PROUSDDR: One FREE connect hour, per account, in both May
                    and June 2004
 NEWS 18  May 12    EXTEND option available in structure searching
 NEWS 19  May 12    Polymer links for the POLYLINK command completed in REGISTRY
 NEWS 20  May 17    FRFULL now available on STN

 NEWS EXPRESS  MARCH 31 CURRENT WINDOWS VERSION IS V7.00A, CURRENT
               MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
               AND CURRENT DISCOVER FILE IS DATED 26 APRIL 2004
 NEWS HOURS    STN Operating Hours Plus Help Desk Availability
 NEWS INTER    General Internet Information
 NEWS LOGIN    Welcome Banner and News Items
 NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:43:37 ON 17 MAY 2004

=> file reg
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'REGISTRY' ENTERED AT 13:43:42 ON 17 MAY 2004
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Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 16 MAY 2004 HIGHEST RN 682330-24-1
DICTIONARY FILE UPDATES: 16 MAY 2004 HIGHEST RN 682330-24-1

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 6, 2004

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

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* * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
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FILE 'REGISTRY' ENTERED AT 13:50:26 ON 17 MAY 2004

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	4.62	4.83

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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	15.12	15.33

=> d his

(FILE 'HOME' ENTERED AT 13:43:37 ON 17 MAY 2004)

FILE 'REGISTRY' ENTERED AT 13:43:42 ON 17 MAY 2004

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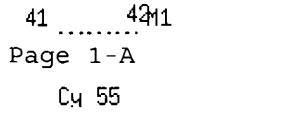
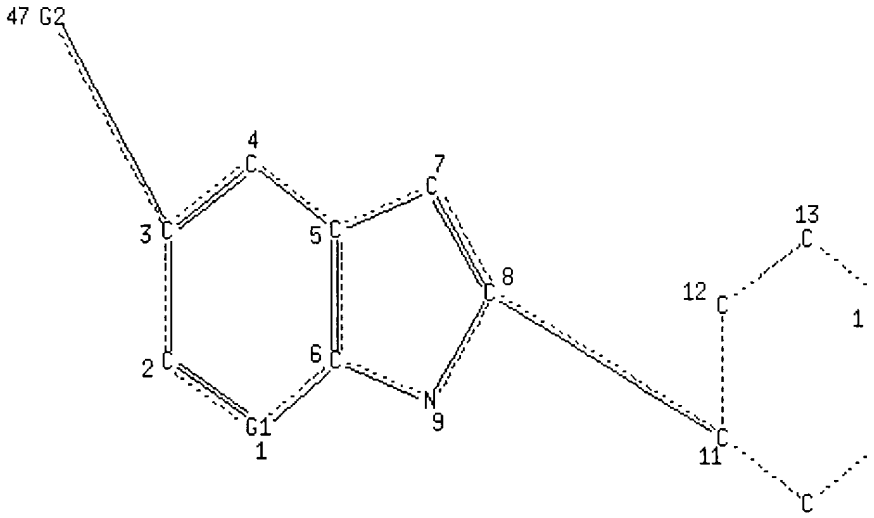
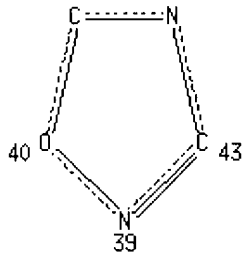
=> d l1
L1 HAS NO ANSWERS
L1 STR





Page 1-C

Page 1-D



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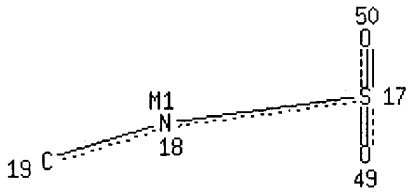
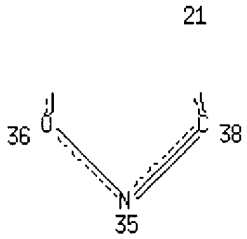
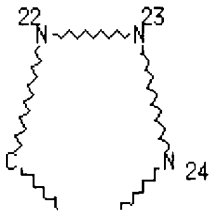
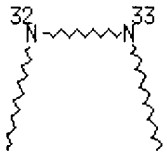


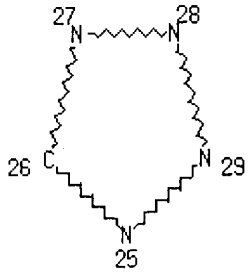
Page 2-C





Page 2-D





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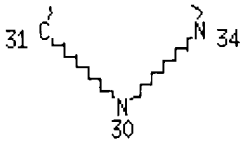

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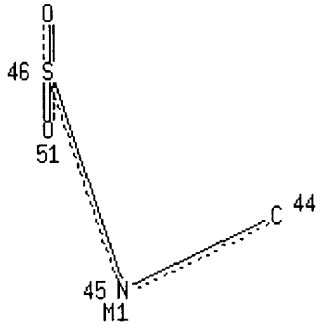

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NSPEC   IS C      AT  46
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NSPEC   IS R      AT  48
NSPEC   IS C      AT  49
NSPEC   IS C      AT  50
NSPEC   IS C      AT  51
NSPEC   IS C      AT  52
DEFAULT MLEVEL IS ATOM
MLEVEL  IS CLASS  AT  16 17 18 19 44 45 46 49 50 51 52 55
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC   1  11
NUMBER OF NODES IS  55

STEREO ATTRIBUTES: NONE


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SAMPLE SEARCH INITIATED 14:06:13 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -   1854 TO ITERATE

 53.9% PROCESSED    1000 ITERATIONS                                3 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:        34498 TO    39662
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PROJECTED ANSWERS:                3 TO      252

L2             3 SEA SSS SAM L1

=> s l1 full
THE ESTIMATED SEARCH COST FOR FILE 'REGISTRY' IS 155.00 U.S. DOLLARS
DO YOU WANT TO CONTINUE WITH THIS REQUEST? (Y)/N or END:y
FULL SEARCH INITIATED 14:06:18 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -  36521 TO ITERATE

100.0% PROCESSED   36521 ITERATIONS                                26 ANSWERS
SEARCH TIME: 00.00.02

L3             26 SEA SSS FUL L1

=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                    170.54     170.75

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FILE COVERS 1907 - 17 May 2004  VOL 140 ISS 21
FILE LAST UPDATED: 16 May 2004  (20040516/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> s l3
L4             7 L3

=> d l4, ibib abs fhitstr, 1-7

L4   ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2004 ACS on STN
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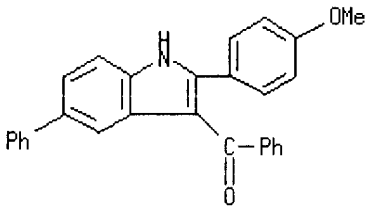
Full Text | Citing References

```
ACCESSION NUMBER:         2001:787194  HCAPLUS
DOCUMENT NUMBER:          136:69709
TITLE:                    Solid-Phase Synthesis of 2,3,5-Trisubstituted Indoles
AUTHOR(S):                Wu, Tom Y. H.; Ding, Sheng; Gray, Nathanael S.;
                          Schultz, Peter G.
CORPORATE SOURCE:         Department of Chemistry and the Skaggs Institute for
                          Chemical Biology, The Scripps Research Institute, La
                          Jolla, CA, 92037, USA
SOURCE:                   Organic Letters (2001), 3(24), 3827-3830
```

CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 2,3,5-Trisubstituted indoles are synthesized in three steps starting from resin-bound 4-bromo-2-iodoaniline. The substituent on the 2-position of the indole is introduced by a palladium-mediated coupling of the iodoaniline with terminal alkynes followed by intramol. cyclization to form the indole core. Acylation with an acid chloride in the presence of AlCl3 catalyst introduces the substituent at the 3-position of the indole. The indole C-5 position is then diversified either by Sonagashira or Suzuki couplings with the bromide. Finally, indole N-1 can be modified by post-cleavage methylation.

IT **385370-44-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(solid-phase synthesis of 2,3,5-trisubstituted indoles)
RN 385370-44-5 HCAPLUS
CN Methanone, [2-(4-methoxyphenyl)-5-phenyl-1H-indol-3-yl]phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1997:238314 HCAPLUS
DOCUMENT NUMBER: 126:225300
TITLE: Preparation of benzazoles as radioprotectors.
INVENTOR(S): Martin, Roger Francis; Kelly, David Patterson; White, Johnathon Michael
PATENT ASSIGNEE(S): Peter Maccallum Cancer Institute, Australia
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9704776	A1	19970213	WO 1996-AU467	19960726
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM				
CA 2228044	AA	19970213	CA 1996-2228044	19960726
AU 9665096	A1	19970226	AU 1996-65096	19960726
AU 717249	B2	20000323		

EP 857067	A1	19980812	EP 1996-924709	19960726	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2000501697	T2	20000215	JP 1997-507005	19960726	
US 6194414	B1	20010227	US 1998-313	19980428	
US 6548505	B1	20030415	US 2000-637903	20000814	
PRIORITY APPLN. INFO.:			AU 1995-4492	A	19950728
			WO 1996-AU467	W	19960726
			US 1998-313	A2	19980428

OTHER SOURCE(S): MARPAT 126:225300
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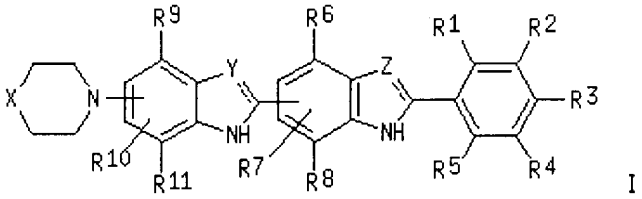
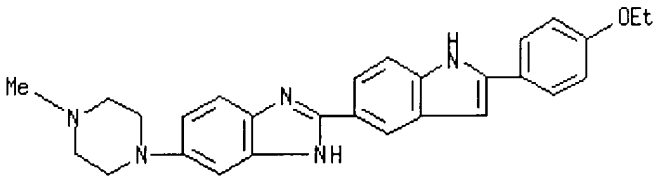


I

AB Use of title compds. [I; X = (substituted) aminoalkyl, alkylene, interactive group; Y, Z = N, O, S CR; R = H, (substituted) alkyl, alkenyl; dotted line = double bond unless the attached Y or Z group = O or S in which case it is a single bond; d R1-R11 = H, a sterically hindering group and an electron donating group; any 2 of R1 R11, Y, Z, NH and R may form a (substituted) ring which may contain heteroatoms, provided that ≥1 of R1-R11 = electron donating group and that when X = NMe, Y and Z = N and R1, R2, and R4-R11 = H, then R3 ≠ OH or OCH2Me] as radioprotectants, is claimed. Thus, 2-amino-4-(1-piperidinyl)amine and 4-dimethylamino-1-[5-(iminoethoxy)methylbenzimidazol-2-yl]benzene hydrochloride (prepn. given) were refluxed 3 h in HOAc/EtOH to give 4-dimethylamino-1-[5-[5-(piperidin-1-yl)benzimidazol-2-yl]benzimidazol-2-yl]benzene. The latter at 17 μM in cell culture studies gave a protection factor of 2.7-2.8.

IT **188247-18-9P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzazoles as radioprotectors)

RN 188247-18-9 HCAPLUS
CN 1H-Benzimidazole, 2-[2-(4-ethoxyphenyl)-1H-indol-5-yl]-5-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)

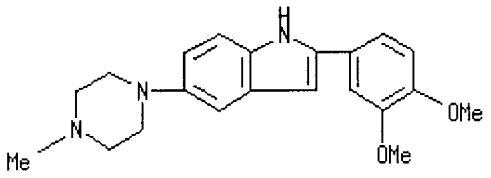


L4 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1995:647297 HCAPLUS
DOCUMENT NUMBER: 123:143666
TITLE: Synthesis of 5- and 6-membered heterocycles by a

strategy combining SNAr and SRN1 reactions
AUTHOR(S): Beugelmans, Rene; Chbani, Mohamed
CORPORATE SOURCE: Institut Chimie Substances Naturelles, CNRS, Gif-sur-Yvette, 91198, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1995), 132(3), 306-13
CODEN: BSCFAS; ISSN: 0037-8968
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: French
AB The SRN1 mechanism is compatible with many substituents on the benzenic substrate and allows SRN1 reactions to be combined with SNAr reactions in a strategy which brings together their corresponding synthetic advantages. Thus, compds. contg. benzene fused to 5- or 6-membered heterocycles contg. N (indoles), N and P (benzazaphospholes) and N and S (benzothiazines) are readily obtained.
IT **166818-63-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of 5- and 6-membered heterocycles by a strategy combining SNAr and SRN1 reactions)
RN 166818-63-9 HCAPLUS
CN 1H-Indole, 2-(3,4-dimethoxyphenyl)-5-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN
Full Text | Citing References
ACCESSION NUMBER: 1991:679809 HCAPLUS
DOCUMENT NUMBER: 115:279809
TITLE: Preparation of 2-phenylindole derivatives as lipoxygenase inhibitors
INVENTOR(S): Suzuki, Yasushi; Hasegawa, Yukio; Sato, Michitaka; Yamamoto, Norio; Hasumi, Koichi; Shidara, Kazuhiro; Miyasaka, Katsuhiko; Kenjo, Takashi; Miyazawa, Katsuhiko; Et, Al.
PATENT ASSIGNEE(S): Teikoku Hormone Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03188064	A2	19910816	JP 1989-326634	19891216
JP 2894617	B2	19990524		

PRIORITY APPLN. INFO.: JP 1989-326634 19891216
OTHER SOURCE(S): MARPAT 115:279809
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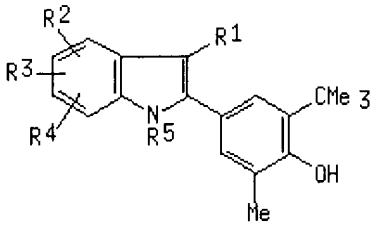

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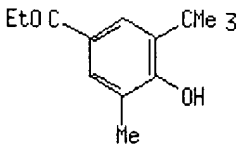


II

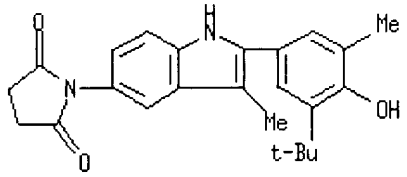
AB 2-Phenylindole derivs. [I; R1 = H, alkyl; R2-R4 = H, halo, alkyl, alkoxy, etc.; R5 = H, alkyl], effective lipoxygenase and cyclooxygenase inhibitors, are prepd. Refluxing a mixt. of 60 g ketone II and 55 g 4-AcNHC6H4NHNH2.HCl in Me2CHOH gave 78 g I (R1 = Me, R2 = R3 = R5 = H, R4 = 5-AcNH), which showed 82% inhibition of 5-HETE at 10 μM. Also prepd. and tested were 25 addnl. I.

IT **137614-73-4P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as lipoxygenase inhibitor)

RN 137614-73-4 HCAPLUS

CN 2,5-Pyrrolidinedione, 1-[2-[3-(1,1-dimethylethyl)-4-hydroxy-5-methylphenyl]-3-methyl-1H-indol-5-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1990:571973 HCAPLUS
DOCUMENT NUMBER: 113:171973
TITLE: Nonsteroidal cardiotonics. 3. New 4,5-dihydro-6-(1H-indol-5-yl)pyridazin-3(2H)-ones and related compounds with positive inotropic activities
AUTHOR(S): Mertens, Alfred; Friebe, Walter Gunar; Mueller-Beckmann, Bernd; Kampe, Wolfgang; Kling, Lothar; Von der Saal, Wolfgang
CORPORATE SOURCE: Dep. Chem., Boehringer Mannheim G.m.b.H., Mannheim, 6800, Germany
SOURCE: Journal of Medicinal Chemistry (1990), 33(10), 2870-5
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:171973
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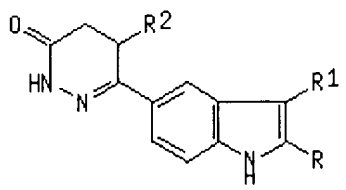


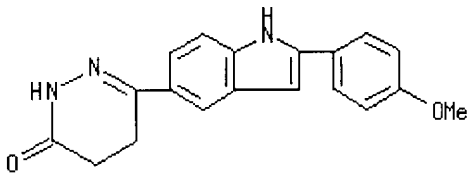
I

AB A series of substituted indolyldihydropyridazinones I (R = Ph, CO2Et, 3-, 4-pyridyl, 4-MeC6H4; R1 = H, Me, Et, CHMe2; R2 = H, Me) and related compds. were synthesized and evaluated for pos. inotropic activity. In rats, most of these indole derivs. produced a dose-related increase in myocardial contractility with little effect on heart rate and blood pressure. I (R = 4-pyridyl, R1 = H; R2 = Me), (II, BM 50.0430), was further investigated in cats. The increase in contractility in this animal model was not mediated via stimulation of β-adrenergic receptors. After oral administration of 1 mg/kg to conscious dogs, II and pimobendan were still active after 6.5 h. However, the cardiotonic effect of II was at least 2-fold that of pimobendan after this period of time. The structural requirements for optimal cardiotonic activity within this class of indole derivs. are a heterocyclic arom. ring in position 2, a hydrogen or a Me group in position 3 and a dihydropyridazinone ring system in position 5 of the indole.

IT **129593-70-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and inotropic activity of)

RN 129593-70-0 HCAPLUS

CN 3(2H)-Pyridazinone, 4,5-dihydro-6-[2-(4-methoxyphenyl)-1H-indol-5-yl]-(9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER:	1984:209577 HCAPLUS
DOCUMENT NUMBER:	100:209577
TITLE:	Syntheses of antimicrobial biscationic 2-(phenoxyphenyl)indoles and -1-benzofurans
AUTHOR(S):	Dann, Otto; Ruff, Juergen; Wolff, Hans Peter; Griessmeier, Helmut
CORPORATE SOURCE:	Inst. Pharm. Lebensmittelchem., Univ. Erlangen-Nurnberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE:	Liebigs Annalen der Chemie (1984), (3), 409-25 CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE:	Journal
LANGUAGE:	German
OTHER SOURCE(S):	CASREACT 100:209577

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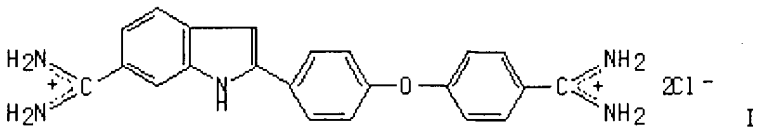

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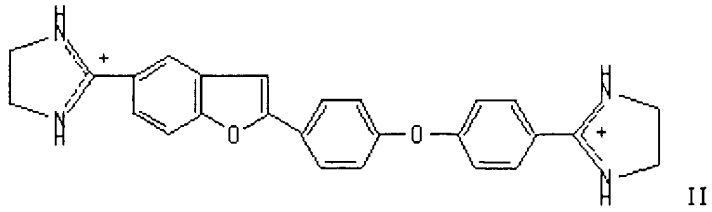

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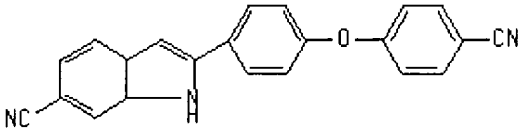


III

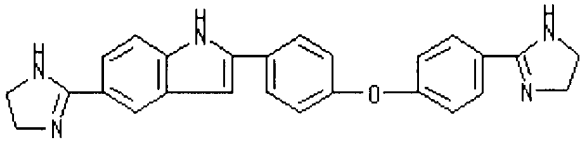
AB Ten 2-(phenoxyphenyl)indoles and 4 2-(phenoxyphenyl)-1-benzofurans with terminal amidinium or imidazolinium groups, e.g. I and II, were prepd. as antimicrobials. Thus, 4,2-Br(O2N)C6H3CH2COC6H4(OC6H4Br-p)-p, prepd. from 4,3-Br(O2N)C6H3CH2CO2H and p-BrC6H4OPh, underwent reductive cyclization followed by reaction with CuCN to give the indole III which was aminated with NH3 to give I.

IT **90178-91-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 90178-91-9 HCAPLUS

CN 1H-Indole, 5-(4,5-dihydro-1H-imidazol-2-yl)-2-[4-[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)



2 HCl

L4 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1983:569063 HCAPLUS
DOCUMENT NUMBER: 99:169063
TITLE: Inhibitory activity of diarylamidine derivatives on murine leukemia L1210 cell growth
AUTHOR(S): Balzarini, Jan; De Clercq, Erik; Dann, Otto
CORPORATE SOURCE: Rega Inst. Med. Res., Kathol. Univ. Leuven, Louvain, B-3000, Belg.
SOURCE: Investigational New Drugs (1983), 1(2), 103-15
CODEN: INNDDK; ISSN: 0167-6997
DOCUMENT TYPE: Journal
LANGUAGE: English
GI

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Notes:	Summaries in English.
ISSN:	0170-2041
Subjects:	Chemistry -- Periodicals. Bioorganic chemistry -- Periodicals. Chemistry, Organic -- Periodicals.
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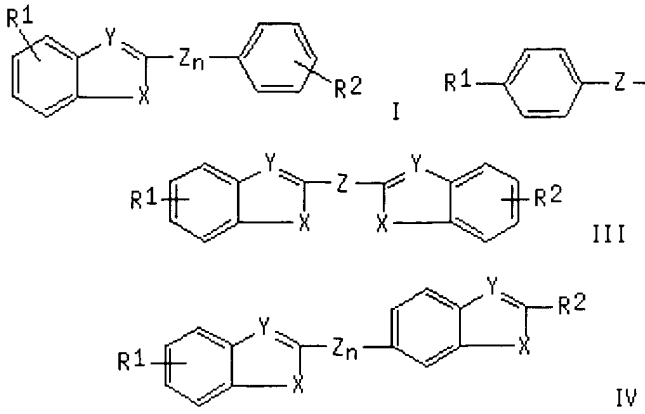


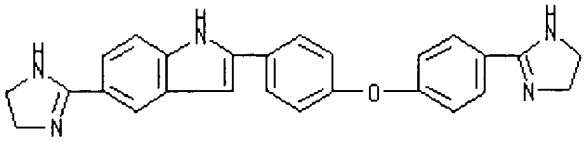
AB A series of 96 diarylamidine and diarylamidazoline derivs., mostly I (X = NH, O, S, SO2, CH2; Y = CH, CNH2, N, etc.; R1 and R2 = amidino, imidazolino, etc.; Z = CH:CH, PhO, CONH, NH, etc; n = 0 or 1), II (R1 and R2 = amidino or imidazolino; Z = CH:CH, NHN:N, etc.), III (X = O, S, or NH; Y = CH, CMe, N; R1 and R2 = amidino or imidazolino), and IV (X = NH; Y = CH; Z = CH:CH; R1 and R2 = imidazolino; n = 0 or 1), were tested for antitumor activity against murine leukemia L1210 cells. Structure-function anal. revealed that the antitumor activity of the diarylamidines depended on the planarity of the mol., the presence of amidino or, preferably, imidazolino groups or both aryl moieties, the nature of the bridge connecting the 2 aryl moieties, and the nature of the aryl moieties (preferably benzofuren or benzo[b]thiophene. Thus, (6-(2-imidazolin-2-yl)-2-[4-(2-imidazolin-2-yl)phenyl]benzo[b]thiophene (I; X = S; Y = CH; R1 = R2 = imidazolino; n = 0) [73819-21-3] was the most potent inhibitor of L1210 cell growth. The inhibitory effects of diarylamidines on L1210 cell proliferation may at least partly involve an inhibition of DNA synthesis. 2,2'-Vinylenedi-1-benzofuran-5-carboxamidine (III; X = O; Y = CH; Z = CH:CH; R1 = R2 = amidino) [65426-90-6] exhibited potent antitumor activity in vitro and in vivo in L1210-inoculated mice.

IT **87559-26-0**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(neoplasm inhibitory activity of, structure in relation to)

RN 87559-26-0 HCAPLUS

CN 1H-Indole, 5-(4,5-dihydro-1H-imidazol-2-yl)-2-[4-[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]phenyl]- (9CI) (CA INDEX NAME)

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     FILE 'REGISTRY' ENTERED AT 13:43:42 ON 17 MAY 2004
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L2               3 S L1
L3              26 S L1 FULL

     FILE 'HCAPLUS' ENTERED AT 14:06:23 ON 17 MAY 2004
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             7 L3
            64 PRIESTLEY, E?/AU
L5           0 L3 AND PRIESTLEY, E?/AU

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             7 L3
           126 DECICCO, C?/AU
L6           0 L3 AND DECICCO, C?/AU

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L7           0 L3 AND HUDYMA, T?/AU

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L4   ANSWER 1 OF 7  HCAPLUS  COPYRIGHT 2004 ACS on STN
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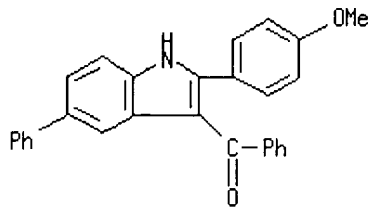
Full Text | Citing References

ACCESSION NUMBER: 2001:787194 HCAPLUS
DOCUMENT NUMBER: 136:69709
TITLE: Solid-Phase Synthesis of 2,3,5-Trisubstituted Indoles
AUTHOR(S): Wu, Tom Y. H.; Ding, Sheng; Gray, Nathanael S.; Schultz, Peter G.
CORPORATE SOURCE: Department of Chemistry and the Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA
SOURCE: Organic Letters (2001), 3(24), 3827-3830
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB 2,3,5-Trisubstituted indoles are synthesized in three steps starting from resin-bound 4-bromo-2-iodoaniline. The substituent on the 2-position of the indole is introduced by a palladium-mediated coupling of the iodoaniline with terminal alkynes followed by intramol. cyclization to form the indole core. Acylation with an acid chloride in the presence of AlCl3 catalyst introduces the substituent at the 3-position of the indole. The indole C-5 position is then diversified either by Sonagashira or Suzuki couplings with the bromide. Finally, indole N-1 can be modified by post-cleavage methylation.

IT **385370-44-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(solid-phase synthesis of 2,3,5-trisubstituted indoles)
RN 385370-44-5 HCAPLUS
CN Methanone, [2-(4-methoxyphenyl)-5-phenyl-1H-indol-3-yl]phenyl- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1997:238314 HCAPLUS
DOCUMENT NUMBER: 126:225300
TITLE: Preparation of benzazoles as radioprotectors.
INVENTOR(S): Martin, Roger Francis; Kelly, David Patterson; White, Johnathon Michael
PATENT ASSIGNEE(S): Peter Maccallum Cancer Institute, Australia
SOURCE: PCT Int. Appl., 79 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9704776	A1	19970213	WO 1996-AU467	19960726
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM				
CA 2228044	AA	19970213	CA 1996-2228044	19960726
AU 9665096	A1	19970226	AU 1996-65096	19960726
AU 717249	B2	20000323		
EP 857067	A1	19980812	EP 1996-924709	19960726
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2000501697	T2	20000215	JP 1997-507005	19960726
US 6194414	B1	20010227	US 1998-313	19980428
US 6548505	B1	20030415	US 2000-637903	20000814

PRIORITY APPLN. INFO.:
AU 1995-4492 A 19950728
WO 1996-AU467 W 19960726
US 1998-313 A2 19980428

OTHER SOURCE(S): MARPAT 126:225300
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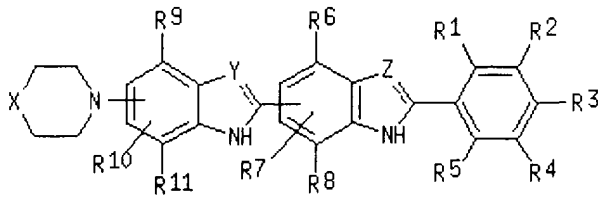


I

AB Use of title compds. [I; X = (substituted) aminoalkyl, alkylene, interactive group; Y, Z = N, O, S CR; R = H, (substituted) alkyl, alkenyl; dotted line = double bond unless the attached Y or Z group = O or S in which case it is a single bond; d R1-R11 = H, a sterically hindering group and an electron donating group; any 2 of R1 R11, Y, Z, NH and R may form a (substituted) ring which may contain heteroatoms, provided that ≥1

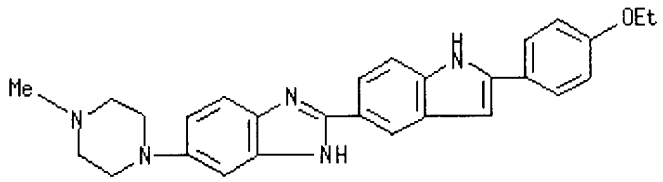
of R1-R11 = electron donating group and that when X = NMe, Y and Z = N and R1, R2, and R4-R11 = H, then R3 ≠ OH or OCH2Me] as radioprotectants, is claimed. Thus, 2-amino-4-(1-piperidinyl)amine and 4-dimethylamino-1-[5-(iminoethoxy)methylbenzimidazol-2-yl]benzene hydrochloride (prepn. given) were refluxed 3 h in HOAc/EtOH to give 4-dimethylamino-1-[5-[5-(piperidin-1-yl)benzimidazol-2-yl]benzimidazol-2-yl]benzene. The latter at 17 μM in cell culture studies gave a protection factor of 2.7-2.8.

IT **188247-18-9P**

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of benzazoles as radioprotectors)

RN 188247-18-9 HCAPLUS

CN 1H-Benzimidazole, 2-[2-(4-ethoxyphenyl)-1H-indol-5-yl]-5-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 3 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1995:647297 HCAPLUS
DOCUMENT NUMBER: 123:143666
TITLE: Synthesis of 5- and 6-membered heterocycles by a strategy combining SNAr and SRN1 reactions
AUTHOR(S): Beugelmans, Rene; Chbani, Mohamed
CORPORATE SOURCE: Institut Chimie Substances Naturelles, CNRS, Gif-sur-Yvette, 91198, Fr.
SOURCE: Bulletin de la Societe Chimique de France (1995), 132(3), 306-13
CODEN: BSCFAS; ISSN: 0037-8968
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: French

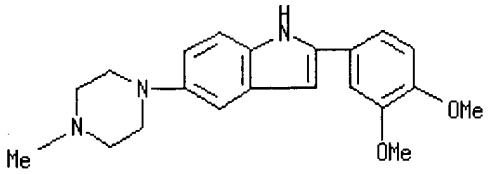
AB The SRN1 mechanism is compatible with many substituents on the benzenic substrate and allows SRN1 reactions to be combined with SNAr reactions in a strategy which brings together their corresponding synthetic advantages. Thus, compds. contg. benzene fused to 5- or 6-membered heterocycles contg. N (indoles), N and P (benzazaphospholes) and N and S (benzothiazines) are readily obtained.

IT **166818-63-9P**

RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of 5- and 6-membered heterocycles by a strategy combining SNAr and SRN1 reactions)

RN 166818-63-9 HCAPLUS

CN 1H-Indole, 2-(3,4-dimethoxyphenyl)-5-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1991:679809 HCAPLUS
DOCUMENT NUMBER: 115:279809
TITLE: Preparation of 2-phenylindole derivatives as lipoxygenase inhibitors
INVENTOR(S): Suzuki, Yasushi; Hasegawa, Yukio; Sato, Michitaka; Yamamoto, Norio; Hasumi, Koichi; Shidara, Kazuhiro; Miyasaka, Katsuhiko; Kenjo, Takashi; Miyazawa, Katsuhiko; Et, Al.
PATENT ASSIGNEE(S): Teikoku Hormone Mfg. Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03188064	A2	19910816	JP 1989-326634	19891216
JP 2894617	B2	19990524		

PRIORITY APPLN. INFO.: JP 1989-326634 19891216
OTHER SOURCE(S): MARPAT 115:279809
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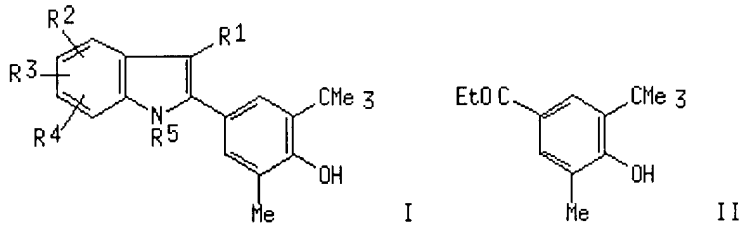
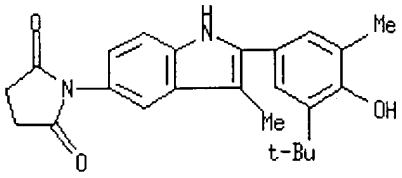


AB 2-Phenylindole derivs. [I; R1 = H, alkyl; R2-R4 = H, halo, alkyl, alkoxy, etc.; R5 = H, alkyl], effective lipoxygenase and cyclooxygenase inhibitors, are prepd. Refluxing a mixt. of 60 g ketone II and 55 g 4-AcNHC6H4NHNH2.HCl in Me2CHOH gave 78 g I (R1 = Me, R2 = R3 = R5 = H, R4 = 5-AcNH), which showed 82% inhibition of 5-HETE at 10 μM. Also prepd. and tested were 25 addnl. I.

IT **137614-73-4P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as lipoxygenase inhibitor)

RN 137614-73-4 HCAPLUS
CN 2,5-Pyrrolidinedione, 1-[2-[3-(1,1-dimethylethyl)-4-hydroxy-5-methylphenyl]-3-methyl-1H-indol-5-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1990:571973 HCAPLUS
DOCUMENT NUMBER: 113:171973
TITLE: Nonsteroidal cardiotonics. 3. New 4,5-dihydro-6-(1H-indol-5-yl)pyridazin-3(2H)-ones and related compounds with positive inotropic activities
AUTHOR(S): Mertens, Alfred; Friebe, Walter Gunar; Mueller-Beckmann, Bernd; Kampe, Wolfgang; Kling, Lothar; Von der Saal, Wolfgang
CORPORATE SOURCE: Dep. Chem., Boehringer Mannheim G.m.b.H., Mannheim, 6800, Germany
SOURCE: Journal of Medicinal Chemistry (1990), 33(10), 2870-5
CODEN: JMCMAR; ISSN: 0022-2623
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 113:171973
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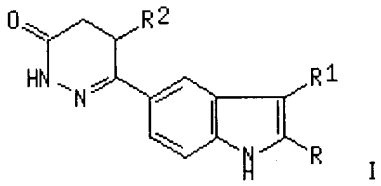
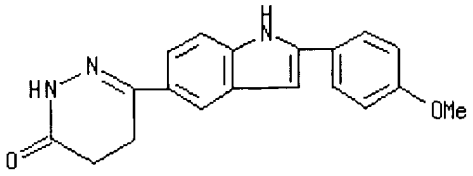


I

AB A series of substituted indolyldihydropyridazinones I (R = Ph, CO2Et, 3-, 4-pyridyl, 4-MeC6H4; R1 = H, Me, Et, CHMe2; R2 = H, Me) and related compds. were synthesized and evaluated for pos. inotropic activity. In rats, most of these indole derivs. produced a dose-related increase in myocardial contractility with little effect on heart rate and blood pressure. I (R = 4-pyridyl, R1 = H; R2 = Me), (II, BM 50.0430), was further investigated in cats. The increase in contractility in this animal model was not mediated via stimulation of β-adrenergic receptors. After oral administration of 1 mg/kg to conscious dogs, II and pimobendan were still active after 6.5 h. However, the cardiotonic effect of II was at least 2-fold that of pimobendan after this period of time. The structural requirements for optimal cardiotonic activity within this class of indole derivs. are a heterocyclic arom. ring in position 2, a hydrogen or a Me group in position 3 and a dihydropyridazinone ring system in position 5 of the indole.

IT **129593-70-0P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(prepn. and inotropic activity of)

RN 129593-70-0 HCAPLUS
CN 3(2H)-Pyridazinone, 4,5-dihydro-6-[2-(4-methoxyphenyl)-1H-indol-5-yl]- (9CI) (CA INDEX NAME)



L4 ANSWER 6 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1984:209577 HCAPLUS
DOCUMENT NUMBER: 100:209577
TITLE: Syntheses of antimicrobial biscationic 2-(phenoxyphenyl)indoles and -1-benzofurans
AUTHOR(S): Dann, Otto; Ruff, Juergen; Wolff, Hans Peter; Griessmeier, Helmut
CORPORATE SOURCE: Inst. Pharm. Lebensmittelchem., Univ. Erlangen-Nurnberg, Erlangen, D-8520, Fed. Rep. Ger.
SOURCE: Liebigs Annalen der Chemie (1984), (3), 409-25
CODEN: LACHDL; ISSN: 0170-2041
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 100:209577
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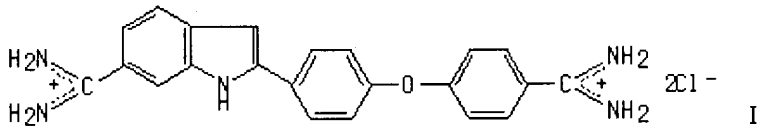

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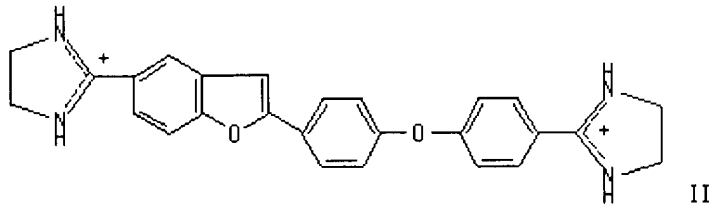

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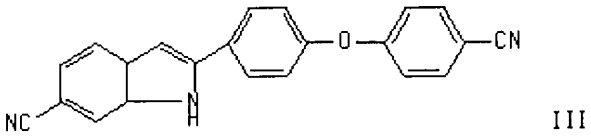
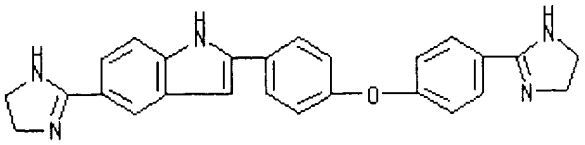


III

AB Ten 2-(phenoxyphenyl)indoles and 4 2-(phenoxyphenyl)-1-benzofurans with terminal amidinium or imidazolinium groups, e.g. I and II, were prepd. as antimicrobials. Thus, 4,2-Br(O2N)C6H3CH2COC6H4(OC6H4Br-p)-p, prepd. from 4,3-Br(O2N)C6H3CH2CO2H and p-BrC6H4OPh, underwent reductive cyclization followed by reaction with CuCN to give the indole III which was aminated with NH3 to give I.

IT **90178-91-9P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)
RN 90178-91-9 HCAPLUS
CN 1H-Indole, 5-(4,5-dihydro-1H-imidazol-2-yl)-2-[4-[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]phenyl]-, dihydrochloride (9CI) (CA INDEX NAME)



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L4 ANSWER 7 OF 7 HCAPLUS COPYRIGHT 2004 ACS on STN

Full Text | Citing References

ACCESSION NUMBER: 1983:569063 HCAPLUS
DOCUMENT NUMBER: 99:169063
TITLE: Inhibitory activity of diarylamidine derivatives on murine leukemia L1210 cell growth
AUTHOR(S): Balzarini, Jan; De Clercq, Erik; Dann, Otto
CORPORATE SOURCE: Rega Inst. Med. Res., Kathol. Univ. Leuven, Louvain, B-3000, Belg.
SOURCE: Investigational New Drugs (1983), 1(2), 103-15
CODEN: INNDDK; ISSN: 0167-6997
DOCUMENT TYPE: Journal
LANGUAGE: English
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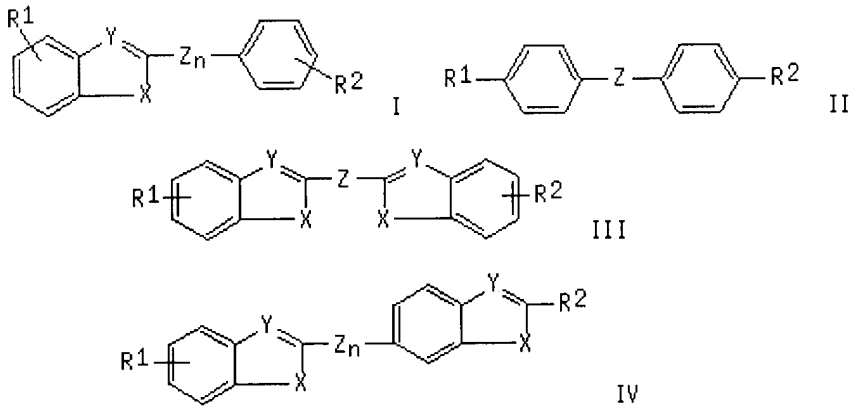
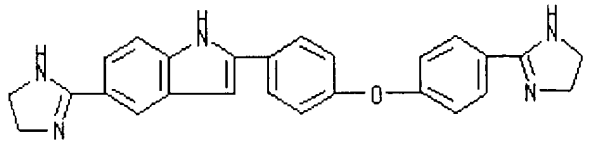


AB A series of 96 diarylamidine and diarylamidazoline derivs., mostly I (X = NH, O, S, SO2, CH2; Y = CH, CNH2, N, etc.; R1 and R2 = amidino, imidazolino, etc.; Z = CH:CH, PhO, CONH, NH, etc; n = 0 or 1), II (R1 and R2 = amidino or imidazolino; Z = CH:CH, NHN:N, etc.), III (X = O, S, or NH; Y = CH, CMe, N; R1 and R2 = amidino or imidazolino), and IV (X = NH; Y = CH; Z = CH:CH; R1 and R2 = imidazolino; n = 0 or 1), were tested for antitumor activity against murine leukemia L1210 cells. Structure-function anal. revealed that the antitumor activity of the diarylamidines depended on the planarity of the mol., the presence of amidino or, preferably, imidazolino groups or both aryl moieties, the nature of the bridge connecting the 2 aryl moieties, and the nature of the aryl moieties (preferably benzofuren or benzo[b]thiophene. Thus, (6-(2-imidazolin-2-yl)-2-[4-(2-imidazolin-2-yl)phenyl]benzo[b]thiophene (I; X = S; Y = CH; R1 = R2 = imidazolino; n = 0) [73819-21-3] was the most potent inhibitor of L1210 cell growth. The inhibitory effects of diarylamidines on L1210 cell proliferation may at least partly involve an

inhibition of DNA synthesis. 2,2'-Vinylenedi-1-benzofuran-5-carboxamidine (III; X = O; Y = CH; Z = CH:CH; R1 = R2 = amidino) [65426-90-6] exhibited potent antitumor activity in vitro and in vivo in L1210-inoculated mice.

IT **87559-26-0**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(neoplasm inhibitory activity of, structure in relation to)

RN 87559-26-0 HCAPLUS
CN 1H-Indole, 5-(4,5-dihydro-1H-imidazol-2-yl)-2-[4-[4-(4,5-dihydro-1H-imidazol-2-yl)phenoxy]phenyl]- (9CI) (CA INDEX NAME)



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L7 0 S L3 AND HUDYMA, T?/AU

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L8 7 L3

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FULL ESTIMATED COST	71.31	242.06

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-9.70	-9.70

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FILE COVERS 1907-1966
FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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